This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

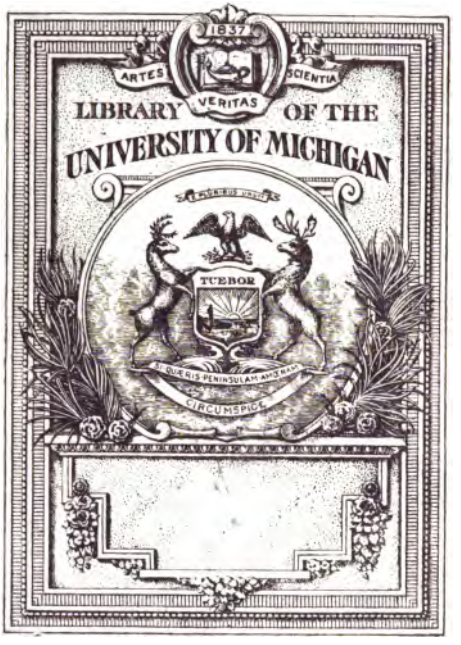
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

A 463058 DUPL


1837
ARTES
SCIENTIA
VERITAS
LIBRARY OF THE
UNIVERSITY OF MICHIGAN
TUEBOR
CIRCUMSPICE

TS
155
.P28

THE WORKS MANAGER TO-DAY

THE WORKS MANAGER TO-DAY

AN ADDRESS PREPARED FOR A SERIES OF PRIVATE GATHERINGS OF WORKS MANAGERS

BY

SIDNEY WEBB

PROFESSOR OF PUBLIC ADMINISTRATION IN THE UNIVERSITY OF LONDON
(SCHOOL OF ECONOMICS AND POLITICAL SCIENCE)

NEW YORK:
LONGMANS, GREEN AND CO.
FOURTH AVENUE AND 30TH STREET
1917

CONTENTS

	PAGE
I. The Function of Management	2
II. Reducing the Cost of Production	15
III. Appointments and Dismissals	21
IV. The Recognition of Trade Unionism	34
V. The Standard Rate	41
VI. Payment by Results	55
VII. The Management should have nothing to do with the Rate of Wages	99
VIII. The "Manners" of Management	103
IX. Discipline	117
X. Fatigue and Accidents	122
XI. "Scientific Management" and "Welfare Work"	131
XII. On "Choosing Equality"	153
Index	159

318117

THE WORKS MANAGER TO-DAY

MR. CHAIRMAN AND GENTLEMEN—You have asked me to talk to you about the function of the Works Manager and his relation to the staff. Whilst I appreciate the compliment that you pay me, I comply with some trepidation, because I have never myself had the experience of the factory. But I have taken part in administration on a large scale and on a small; and there is something to be learnt, even about works management, from the larger experience of life and the study of the necessary relations between men and things, which not every works manager has found out for himself. At any rate I will try to make some suggestions for your consideration, with regard to certain matters which will have been within the experience of every one among you.[1]

[1] It is not easy to suggest any books dealing generally with the subject of this address. Some hints may be gleaned from such books as *The Library of Factory Management*, 6 volumes, published by the A. W. Shaw Company of Chicago, 1915; *Profit Making in Shop*

I

THE FUNCTION OF MANAGEMENT

FIRST let me remind you that you belong to a brain-working profession, just as much so as the lawyer or the doctor, the architect or the engineer, though your vocation is only now becoming conscious of itself as a distinct profession, the profession of management. The function of the manager or superintendent in an industrial concern—we need not for the moment discriminate between the different grades of management—is plainly something different from that of the craftsman, labourer, or machine-operator: it is

---

and Factory Management, 1908; *Principles of Industrial Engineering*, by Charles B. Going, 1911; *Principles of Industrial Organisation*, by D. S. Kimball, 1913; *Works Management*, by W. D. Ennis, 1911; *Principles of Industrial Management*, by J. C. Duncan, 1911; *The Factory Manager and Accountant*, by H. Roland, 431 pp., 1903; *The Works Manager's Handbook*, by W. S. Hutton, 444 pp., 1907 (first published in 1890); *Organising a Factory*, by C. F. Woods, 156 pp., 1905; *Factory Organisation and Administration*, by H. Diemer, 317 pp., 1910; and the newest treatise, *The Administration of Industrial Enterprise, with Special Reference to Factory Practice*, by Edward D. Jones, 442 pp., 1917. But I am afraid that these works are written mainly from a different standpoint, principally with a view to American experience and practice, and relating more to buildings, plant, and machinery than to psychological problems. Something may be gained from the *Proceedings of the Conference of Employment Managers of Boston, Mass.* (Bulletin 202 of U.S. Bureau of Labor Statistics, 1916). Books on specific subjects are referred to on subsequent pages.

not his business actually to make the product with his own hands. Nor is it the same as that of the inventor, whether in mechanics or chemistry, in metallurgy or electricity; or that of the designer or draughtsman, who adapts the invention or the plan to the material available and the product desired. Moreover, the function of the works manager ought not to be that of the buyer of materials, components, or stores, for which there should be a separate Purchasing Department, any more than it is that of finding a market for the products of the enterprise, whether this is done by advertising, by commercial travelling, by a special selling agency, or exclusively by obtaining orders and entering into contracts at the head office.[1] Equally separate is the whole work of the clerical and accounting staff. What we are concerned with here, whether we are considering any grade of managers or superintendents, is the quite distinct profession of organising men—of so arranging and directing the activities of a band of producers,

[1] The "Sales Manager," for whom an association has been formed lately in London, has, of course, entirely different functions from those which are herein dealt with. There is in Great Britain a flourishing Association of Colliery Managers, and an ably conducted Institute of Gas Engineers, both of which appear to be Associations of Professional Managers in their respective industries (see the Supplements on "Professional Associations," issued with *The New Statesman* of 14 and 21 April 1917).

including both brain-workers and manual workers, as to create among them the most effective co-operation of their energies in achieving the common purpose. What the manager has principally to handle, therefore, is not wood or metal, but human nature; not machinery, but will. I beg you to think of yourselves, whatever may have been your training, not as engineers or cotton manufacturers, or shipbuilders or paper-makers, or whatever else may be the designation of your employers, but as professional managers, charged with a distinct function which all of you have in common, whatever the product that you are concerned to turn out, namely, the function of handling human nature in conjunction with machinery and materials with a view to its perfect co-operation in an industrial enterprise; and members of a profession, too, which is developing a technique of its own, as yet only beginning to be described, of which these professionals alone are completely masters.

This function of management, which is needed as soon as two or three are gathered together in a common task, is recognised as indispensable when we come to enterprises in which numbers are engaged. In large establishments it demands the undivided attention, not only of one person but of a whole class; and we see evolved a

specialised and differentiated hierarchy of foremen and departmental superintendents and managers of this or that branch of work—a hierarchy culminating in some form of General Manager or Managing Director, and reaching, in some cases, a high degree of complexity. Nor is it only for the sake of the profit-making proprietors, who still so often control our factories and our industries, and still so often intervene personally in their administration, that management is indispensable. The co-ordination of energies that the manager secures, that efficiency in production which is his object, is as necessary when the proceeds of the enterprise are shared exclusively among the producers, as in the so-called self-governing workshop, or (as in the rapidly increasing development of State or Municipal or Co-operative production) are appropriated for the common benefit of the community, as they are when they enrich the private capitalist. Management is involved in the avoidance of any waste of human effort.

And, just as a manager has become necessary for every enterprise of more than inconsiderable size, so we can confidently predict that, unless the world reverts to individual handicraft production, he will remain for all time an indispensable functionary, whatever may be the form

of society. Whether the factories are owned by individual proprietors or by joint-stock companies, by gigantic Trusts or by the Government of the State; whether industry is conducted by private employers, or by State Departments, or by municipalities, or by Co-operative Societies, or even, as some of the younger thinkers now propose, by the Trade Unions developed into National Guilds; finally, whether the net product is made for the capitalists or is in one or other way shared among any particular group of producers or among the whole community, that expert direction and co-ordination of the wills and energies of all the producers which we call management will always be necessary. The manager, superintendent, and foreman may have what designations we please; they may be selected and appointed in this way or that; their authority may be enlarged or diminished as their duties may be varied; they may become to a lesser or a greater extent "profiteers," or be exclusively salaried functionaries; but they will, we may be quite sure—like the conductor of an orchestra — henceforth always exist, and always have their function in industrial enterprise. In my own opinion, the profession of the manager, under whatever designation, is destined, with the ever-increasing complication

of man's enterprises, to develop a steadily increasing technique and a more and more specialised vocational training of its own; and to secure, like the vocation of the engineer, the architect, or the chemist, universal recognition as a specialised brain-working occupation. I need hardly say that I do not overlook the importance of the manager having also a profound acquaintance with, and even considerable manual proficiency in, the particular mechanical, chemical, or electrical technique of the industrial operations that he manages. But it is imperative that he should, in all cases, have much more than this. It is, in fact, just this addition to the qualifications of the engineer, the chemist, or the electrician that makes him a manager. And in view of the continued growth of Professional Associations in all civilised countries,[1] I look to see the professional managers of the various services (including those that are still run as profit-making industries) eventually organise themselves in a Professional Association of their own, perhaps in an Institute of Managers like the Institute of Actuaries or the Royal Institute of British Architects, with its several grades of membership; concerned with the progressive development of its own

[1] *Ibid.*

technique; fostering its own special vocational training; succouring the needs of its less fortunate members; and standing up, in its own way, for the special interests of its own rank and file, and the status and dignity of the profession.

I have said that the profession of the manager would always continue to exist, whatever may be the form and government of the Social Order. I suggest to you that, with increasing knowledge and education among men, it is destined to become not less, but progressively more important in the world. This will, I think, be realised to be inevitable if we take account of two things: first, the ever-increasing magnitude and complication of man's operations, in industrial production as in other forms of activity; and secondly, the absolute necessity, wherever there is magnitude and complexity, of direction and co-ordination, if a large part of the effort of those concerned is not to be wasted. The spread of education among the whole people will but augment the scope for management. The widest possible diffusion of musical attainments does not diminish either the necessity for orchestral conductors or their numbers. On the contrary, it increases both their numbers and the opportunities for the exercise of their func-

tion. The more that men become capable of co-operation in enterprises of larger and larger scope, and of greater and greater complexity, the more indispensable becomes the manager to any high degree of efficiency of human effort.

At this point, we come to a word which is much misunderstood. What, in industrial administration, do we mean by efficiency? Clearly, the most efficient industrial concern is not necessarily that which pays its manager the highest salary, because this might be obtained at the cost of continually "passing the dividend"! Equally plain is it that we cannot measure the efficiency of a business merely by the magnitude of the profits taken by the shareholders or other proprietors, because these might conceivably be enlarged by merely withholding proper salaries from the managerial staff, which no one would call efficiency; or by depriving the manual working producers of part of their wages, which might be mere cheating; or (as we have lately so often seen) by temporarily getting the better of the Government or the consumer owing to a fortuitous position of advantage, which, whatever it ought to be called, is certainly not a measure of the efficient management of the factory. The fact is, that

the efficiency of a works manager cannot properly be gauged by his employer's profit and loss account. As every works manager knows, profit or loss depends to a very great extent on factors outside his scope. As things are now organised, in all profit-making businesses a large part, and in some profit-making businesses the principal part, of the profitableness or otherwise, depends on the buying of the materials—the owners of the business are to that extent habitual speculators in cotton or wheat or copper ore, or whatever it may be. Moreover, with the capitalist system under which we continue to leave so much of the world's supply, all business profits depend to a great extent, and in some businesses to a predominating extent, upon the "state of the market" for their output, and upon the organisation of selling, and the energy and skill devoted to this part of the business. It must clearly be one of the axioms of the works managers' profession that the works-manager cannot be made answerable, and must not accept complete responsibility, for the enterprise being conducted at a profit to the proprietors. He cannot control the capitalist operations either at the one end of the enterprise or at the other. His function is not speculative buying or skilful marketing. He

can only get the materials, whatever their cost, converted into the product, whatever it may fetch. His concern is thus primarily with output, not profit.

And the output at which the works manager aims is, of course, not merely aggregate gross output of the unit of production that he happens to control, irrespective of the size of the staff. Nor can it mean simply the greatest possible output per person employed, because—to take an extreme case—it would not, in the twentieth century, be considered an efficient industrial enterprise which got output at the cost of life, even of the humblest members of the staff. After all, the very object with which the world engages in industry is in order to live. We do not live to work, but work to live. Consequently, the efficient manager is he who makes his industry efficient in *quantity and quality of product in comparison with the human efforts and sacrifices involved.* And this definition enables us to remove a misunderstanding which makes many people averse from the very idea of industrial efficiency. Not poets and sentimentalists only, but also in their thoughtful moments nearly the whole wage-earning class, and a great many people of cultured leisure, resent the taking for an ideal of any such "low"

thing as efficiency. But this aversion or resentment is a mistake. The manager has, in the last analysis, an ideal no lower and no more "Philistine" than that of the most Utopian poet. We must all live; we cannot live without work; and we all really wish our work to be as efficient as possible in achieving its object, which is Life. It cannot seriously be suggested that anybody wants to give more human efforts and sacrifices for a given product than is required—unless, indeed, he means more of other people's efforts and sacrifices in place of his own! Thus, the works manager is out for fullness of life, just as much as is the poet—only the works manager has, to the extent of his own sphere, to get the means of any fullness of life for the community of individuals, instead of merely for each of them. This is not to say that material productions are the only things needful to life or to welfare. It is doubtless true that the outcome of our present social order is enormously to overvalue material products, and wealth generally, in contrast with education or culture, or spiritual satisfactions. Those who protest against success or progress being measured in terms of material production have every justification for their protest. Nevertheless, apart altogether from the need for other things, and

apart altogether, too, from the desirability of a more equitable distribution of that which is produced, the world requires material production in order to live, and requires even an increase of material production in order that the growing population may be able to live well. We ought not to blame or to criticise the works manager, or to undervalue his function, because he serves only one side of human needs. The works manager is justified in aiming at increase of output, so long as he thereby infringes no human right. In particular, waste profits no one ; and industrial efficiency means the avoidance of waste. The objector to industrial efficiency sometimes means that he grudges the effort or sacrifice that a given process demands, or hates the circumstances under which it is introduced. The wage-earner who vaguely dislikes industrial efficiency usually means, first, that he very properly resents being regarded as a machine; secondly, that he disapproves of the use that is now made of industrial efficiency ; and thirdly, that he naturally objects to any change in his daily life which is arbitrarily imposed on him. It is one of the primary difficulties of the manager to disentangle, in his own mind and in those with whom he is brought in contact, these inevitable misunderstandings of industrial efficiency from industrial efficiency

itself. Whether we are Socialists or Individualists, practical men or idealists, poets or politicians, we cannot afford to see industrial efficiency—in its real sense—dislodged or dispensed with.

II

REDUCING THE COST OF PRODUCTION

FROM the standpoint of the economist, the function of the manager is to promote the efficiency of the enterprise; or, to put it more shortly, to increase its net productivity. Civilisation, so far as it is real, is everywhere at war with waste. This means, to put it summarily, reducing the cost of production. Unless every member of the managerial staff, from the humblest foreman up to the directing chief, is, by his activities, causing the cost of production to be less than it would be were he not at work, he is a parasite living on the labour of others, just as much as is the functionless landowner to whom the concern pays a chief-rent or ground-rent, or a feu-duty. But the reduction in the cost of production effected by management must, to be justified, be a genuine decrease of cost—that is to say, a reduction of the human efforts

and sacrifices required per unit of output—not merely a lowering of the rate of wages paid to the workmen. As things now are, the employer, whether capitalist or Town Council, State Department or Co-operative Society, is apt to confuse these essentially different things. At first sight, indeed, it seems to be the same to the Profit and Loss Account whether the reduction in the outgoings necessary to produce a given output has been achieved by a decrease of the human efforts and sacrifices involved—say by stopping some waste, by eliminating some useless process, and by economising in material or stores—or by a cut at wages, for undiminished work. In an engineering factory, for instance, reduction in cost may be obtained by introducing more automatic or semi-automatic machinery, by devising more suitable plant for the work, by effecting economies in fuel, especially as regards the sources of power, by more extensive application of jigs and fixtures, by the better designing of machine tools, by the use of mechanical transport for moving all materials, components, and products, by improvements in lighting or ventilation, by increasing the ease and comfort of the workers in their toil, and by preventing any person in any occupation from ever being kept waiting for anything whatso-

ever. All this, either directly or indirectly, saves human effort and sacrifice. The cut at wages, on the other hand, is not, in any real sense, a reduction in the cost of production, any more than would be a diminution in the manager's salary, or a halving of the shareholders' dividends. It is only an alteration in the way in which the proceeds of the enterprise are shared. It is, in itself, like the effort of the burglar or the forger, of no social or economic advantage. There is, so the economists tell us, practically never any national gain in a reduction of any recognised common Standard Rate. This was not always understood. I do not know whether it would be too hard to say that the old-fashioned capitalist employer of the last century was often frankly out to take advantage of the weakness of any one with whom he came in business contact; and that he would cut wages whenever he thought the workmen would stand it without revolt, with as little compunction as he extorted a higher price from the consumer whenever he had the power to do so. I am glad to think that this is now disavowed by reputable private employers, just as it is professedly forbidden in any public service. If it were the function of the manager to assist the employer in such conduct the

manager would, side by side with the employer, rank, economically, with the highwayman. More precisely, the salaried manager would be comparable to the stalwart man-at-arms—quite a respectable personage of the time—whom a Robber Baron on the Rhine used to employ at a fixed remuneration to sally forth from his castle to levy his dues on the passing merchants. But such conduct is, from the standpoint of efficiency, worse than a crime, because it is a blunder. We cannot, at present, in most industries, prevent the owner of the business from interfering with the rates of wages, subject to the law of the land, and to the revolts that he provokes. But the professional manager who knows his job realises that to pay less than the recognised Standard Rate, or to cut piecework rates, or reduce bonus times, or in any way to "nibble" at wages, is about the very worst thing he can do, *if he wishes to achieve the minimum cost of production.* It is not merely that such a policy means that he gradually gets the most irregular, the least skilful, and, on the whole, the least trustworthy labour in the particular industry, instead of being able to pick the best. What is worse, it inevitably provokes the reprisals of "ca' canny." Over the industry, the establishment, or the manager making this

fundamental mistake there hangs perpetually the curse pronounced on Mount Ebal, "Cursed be he who removeth his neighbour's landmark." There can be no genuine industrial efficiency, and certainly no real reduction in costs, where a sullen hostility or suspicion leads every workman to keep his output down to just enough to escape dismissal. I cannot stop here to characterise as I should wish to do the fundamental impolicy and the social injury involved in these reprisals of "ca' canny." I have here nothing to do with the shortcomings or delinquencies of the manual workers, any more than with those of the landlords or the legislators. I can only say that "ca' canny" is so grave a social evil that any manager who, by negligence or heedlessness, provokes such reprisals—as a careless man might fire the heather or disseminate enteric—may one day come to be dealt with professionally. By the authority of Parliament the General Medical Council strikes off the register any doctor found guilty of "infamous conduct in a professional respect," as the Council has defined it. I can imagine that the future Professional Association of Managers might quite well come to regard as guilty of "infamous conduct in a professional respect" (entailing censure, and even exclusion from the profession)

any manager who is found to commit the professional folly of seeking a reduction of cost of production by "cutting" rates or lowering the Standard Wage. But to this important subject I shall return.

III

APPOINTMENTS AND DISMISSALS

THE practice of industrial establishments in taking workmen into their service seems to vary enormously even in the same trade. At one end of the scale we see a foreman summarily picking out this man or that from a surging crowd at the factory gates. At the other end we have all the appointments, even of labourers, made after elaborate enquiries by a special "Employment Department," or by one of the partners in the firm, or by a manager in high position, specially deputed for this duty. In the one case (leaving out of account the brutality of the procedure, and the serious injury to the community that it causes, of which, usually, the manager is quite unaware)[1] the assumption seems to be that one man will do as well as

[1] Naturally, I am not oblivious of the difficulties presented by the varying amount of work to be done, or by seasonal trades; but the resort to casual labour must be recognised as always involving a loss

another; that character and conduct are of no consequence in "mere" workmen; and that a staff which is a constantly shifting congeries of atoms will be as efficient in production as one which is an organic whole. I need not tell you that these assumptions are fundamentally erroneous. It may seem unimportant what sort of labourer is taken on for a simple job of loading or unloading, fetching and carrying. But the simplest job can be done more or less honestly and more or less efficiently; and even one man has his effects, for good or for evil, on all with whom he comes in contact. Moreover, the whole staff is made up of individuals; and what the whole staff will be, and how it will work, depends, very largely, on how each person is selected.[1]

---

of efficiency, and therefore as an expedient to be as far as possible minimised. So easy has it usually been to take on casual labour, that I do not feel assured that managers have hitherto given all the heed that they might have done to securing continuity of production, and therefore of employment.

See, on this point, *Unemployment*, by W. H. Beveridge, and *The Prevention of Destitution*, by S. and B. Webb (1911, Longmans, 6s.).

[1] Workmen will sometimes urge objections to any elaborate enquiry before a man is taken on; and will occasionally claim that an employer has nothing to do with anything but their technical proficiency. But it is really a rise in the status of the manual worker to treat him, in this respect, exactly as we treat a clerk or a manager. He must cease to be engaged as a "hand," to be taken on and dropped at an hour's notice, just as it suits the employer's convenience, and must receive an appointment as a responsible member of an establishment, in which a durable relationship is contemplated.

On the other hand, the minute inquisition into the candidate's

In the United States, where the methods of "hiring and firing" have often been much more summary and ruthless than those to which we are accustomed in Great Britain, the excessive "turnover" of labour thereby produced is becoming more and more recognised as a serious drawback to industrial efficiency. The building up of the right kind of staff, its retention in the service once it has been secured, and its skilful recruiting from year to year, constitute, in fact, one of the most important elements in management. It is hard to make a foreman understand that, though one demoralised workman may not make much difference to the net productivity (though every little tells), the difference between a whole staff of demoralised workmen and a whole staff of carefully chosen workmen may amount, in a year, to ever so much more than the salary even of the General Manager himself.

Now, any careful and systematic organisation of the engaging of workmen necessarily involves the abandonment of "patronage" by foremen or managers. Most people like power, even in small matters, and the opportunity of doing

private life, his savings, his church-going, his recreations, and his family relationships—in which some British employers are beginning to copy American practice—constitutes an unjustifiable invasion of privacy; and is unwarranted whether the appointment to be filled be that of manager or labourer.

favours and bestowing benefits, especially when not at their own cost! It is obvious that efficiency (and also justice) demands that for every vacancy, high or low, the best available man shall be selected, irrespective of whether or not he is related to a foreman, or is a friend of his, or a friend of his friend, or a public-house acquaintance. Anything else is jobbery; and it is worth remembering that, in the Great Britain of to-day, this is one of the ways in which private enterprise is still disgraced. It is a demonstrable fact that jobbery, in this sense, is, in Great Britain at any rate, more prevalent in private business than it is in municipal affairs, and more prevalent even in municipal affairs than in Government Departments. This is particularly the case with regard to the better paid and socially more desirable appointments, which, in private businesses, are still subjected to the claims of family relationship to an extent now unknown in the public service. It is one of the first duties of the professional manager to put a stop to jobbery, even with regard to the humblest situations. Of course, there are lower depths than a simple favouritism. Unless all appointments are centralised and systematically scrutinised there may easily be bribery, and the levying by foremen of what is virtually

blackmail, with all sorts of insidious degradation of the staff.

I cannot believe that what I may call the system of trial and error is the best way of choosing workmen. To take on a man at the gate, who says he possesses such and such skill and then to put him to work under the foreman's eye—the foreman "firing" him after a few hours because he is not skilful enough, and then taking on another man in the same way—this does not seem a scientific or a civilised way of recruiting a staff. Even with respect to technical efficiency there must be better ways of choosing men than this, though it is beyond my competence to name them.

There is, I need hardly say, more to be considered in making an appointment than the mere technical proficiency of the candidate. If you are picking a man to form part of your staff, you need to consider what will be his personal influence on those with whom he comes in contact. It is plainly vital to consider whether his admission is likely to raise or to lower the total efficiency of the workshop; and this depends to no small extent on its "tone." It may seem a counsel of perfection, but I do not see how we can escape from the inference that if we are aiming at perfect industrial efficiency, it is important to

take the same sort of trouble in selecting artisans and labourers and in retaining them once they are selected, and in keeping them in a cordial and satisfied state of mind, as we already do with regard to clerks and managers. Moreover, there is a further consideration. It is not only what a man may do to the other workmen that is important, but also what the other workmen may do to him. The existing staff has some claim to have its feelings respected, as regards those who are set to work among them in close personal companionship. It may seriously interfere with efficiency if a man or a woman is brought in against whom there is, for any reason, a strong feeling of antagonism or disapproval, whether this feeling is based on religious or racial prejudice or jealousy, or on personal character or conduct. It is simply courting trouble to impose a notorious non-unionist on a strongly union shop. It is simply ruination to a female staff to introduce workers irrespective of their personal character. In the same way, it is necessary to keep a constant watch on foremen and subordinate managers, in order promptly to detect the existence of any feelings of anger or hostility or unpopularity that they arouse among those who are subject to them. The perfect foreman or manager will know how

to do his duty with all due strictness, but with such obvious impartiality and fairness, and such genuine courtesy and kindliness—in short, with, in the best sense, such good manners—that he will be respected and liked by the workshop. We cannot all attain such perfection. But it remains true that a foreman or manager who is seriously disliked, from whatever cause, has a very lowering effect on efficiency; and he had better be moved and warned. Which large establishment will be the first to start a school for foremen? It would be, very largely, a school of manners.

Similar considerations apply, of course, to dismissals. What workmen nowadays resent more than anything else is the capricious tyranny to which they are still often subjected, very largely by foremen, but sometimes by managers and by employers themselves. I am afraid that most business enterprises of any magnitude are here sadly at fault. Lest I should be supposed to be merely imagining what goes on in many a great factory in the United Kingdom, or to be taking a biassed or an exaggerated view, I will quote here the recent testimony of an English engineering employer.

> In most works, in the engineering trade at least, the whole industrial life of a workman is in the hands of his foreman. The foreman chooses him from among the

applicants at the works gate; often he settles what wages he shall get; no advance of wage or promotion is possible except on his initiative; he often sets the piece-price and has power to cut it when he wishes; and, lastly, he almost always has unrestricted power of discharge. These great powers are exercised by men chosen generally for their energy and driving power. They are usually promoted workmen, with no very marked superiority in education, outlook, or sympathy over those whom they command. It is not surprising, therefore, that these powers are often abused; and a tyranny, both in matters of detail and principle, established, which the higher management, even if it has the desire, has very little power to soften or control. The most glaring case of this is usually in connection with discharge. The workman may be told by the foreman at a moment's notice that he is no longer wanted. If the department is obviously short of work, this is accepted generally with remarkably good grace, but the discharge may just as likely be the result of "words" with the foreman, and in that case will almost certainly be felt to be an act of spite or revenge, and be resented accordingly. The workman has no court of appeal against the edict; it is almost impossible for him to get past the foreman to see the manager or a director, and even if he should succeed, the management has practically no choice but to back up its agent. To support the workman against the decision of the foreman would generally lead to the resignation of the latter, whose value to the firm is considerably higher than that of any individual workman, and whose loss cannot be lightly faced.[1]

[1] "Industrial Reconstruction: an Employer's View," *The Athenæum*, March 1917.

I hope that neither this candid employer nor I will be supposed to be bringing an indictment against all foremen, many of whom are recognised by the workmen themselves to be fair-minded men, striving to do justice in a very difficult situation. Nor need we be supposed to be oblivious of the manifold faults and deficiencies of the workmen. Equally do we see many employers and managers striving constantly for justice and humanity. My object here is to ask every manager within my reach what organisation there is in his works, what steps he has himself taken, to prevent the possibility of misuse by the foremen of the very great powers with which they are nearly always entrusted. It is, I venture to say, one of the imperative duties of a manager to contrive some system by which this power—which we know is always liable to misuse—is automatically prevented from developing into tyranny.

On the particular point of the power of dismissal, I cannot help doubting whether—apart, perhaps, from the summary termination of the first day's probation of a new workman—this should ever be exercised, at any rate so far as concerns what may be called an established member of the staff (however low may be his wage), by any one in less authority than one

of the principals of the firm, or by the manager himself. So heavy a penalty as the dismissal of a workman (involving to him a serious dislocation of his life, the perils and demoralisation attendant on looking for work, probably the uprooting of his home and the interruption of his children's schooling, possibly many weeks of penury or semi-starvation for his family and himself) ought to be regarded as a very serious matter. No man ought to be dismissed by reason of anything personal to himself, except after a formal enquiry, and for a definite cause, against which he must be allowed an opportunity for explanation or defence. No foreman or subordinate manager ought to be allowed to exercise the power of dismissal. There must, of course, be power of instant suspension and report, to be confirmed or not, after formal enquiry, by the manager or partner to whom this important duty is specially assigned.

In some establishments, where the owners attempt to be humane, it is sought to protect the workmen against injustice by letting it be known that they have full rights of appeal to the management, or to the individual partners, against any dismissal or disciplinary punishment by a foreman or assistant manager. This is kindly meant, but it is not effective, and it leads

to difficulties. Discipline, and the foreman's authority, must be maintained. Once a foreman has pronounced sentence, even the most just and most humane employer finds great difficulty in throwing him over. The workman, by appealing, may show that he was not himself to blame, and that the foreman was hasty or ill-tempered, or even prejudiced; but what is the employer to do? To let the man win his appeal, to pronounce to the whole workshop that the foreman was wrong—in short, to do justice—seems to involve the permanent weakening of the foreman's authority, the discouragement of his efforts to promote the interests of the concern, friction in the shop, and the destruction of discipline. What happens, I fear, is that, except in exceptionally glaring cases, the case is regarded as an inextricable tangle, the foreman is given the benefit of the doubt, and the sentence of dismissal is confirmed. If the workman is meritorious, and the employer is kind, an effort may be made to find him a place elsewhere; and the foreman is privately warned not to do it again. But the foreman's authority is almost invariably upheld.

This shows that subsequent appeal against the foreman's sentence is not the right device. What is required is something like the procedure

adopted in some other enterprises, which we may call that of prior confirmation of any sentence of dismissal before it is promulgated. There ought, it is clear, to be a very definite code of procedure as to dismissals. A foreman may summarily suspend a workman, or he may warn him ; but the foreman must not go beyond this under any circumstances whatsoever until he has submitted the case privately to the manager, who goes into it as he thinks fit, probably summoning the workman before him. The essential thing is that whatever decision is arrived at is announced by the foreman as his own. He is thus, in the eyes of the workshop, never overruled.

Even when workmen have to be put off from slackness of business (a slackness resulting from the failure, be it remembered, not of the workmen but of the management; it may be an unavoidable failure, but it is to be regarded nevertheless as a failure to secure the first requisite of maximum efficiency, namely continuity of running) the matter ought not to be lightly treated. Prior notice should be given to the Employment Exchange of any projected reduction of staff. The longest possible notice ought to be given to the workmen about to be put off; attempts should be made to find them

employment in other departments; and if these fail, the very least consideration to be shown is a clear week's notice (or a week's pay in lieu of notice). Depend upon it, the manager who neglects this sort of consideration — perhaps thinks himself clever in turning off "hands" with as little expense or trouble to the firm as turning off the gas—does not know his business. He may think he does very well, but (such is the human nature which he has to handle) he will inevitably fail either to maximise output or to minimise cost. This is coming to be increasingly recognised in the United States.[1]

[1] See the *Proceedings of the Conference of Employment Managers' Association of Boston, Mass.* (Bulletin 202 of U.S. Bureau of Statistics of Labor, 1916).

IV

THE RECOGNITION OF TRADE UNIONISM

I SUPPOSE that I do not need to make clear to you that workmen have a perfect right to combine to defend or improve their economic position; and that no employer is justified in resenting such combination. The employer or the manager who, in these days, takes up an attitude of hostility to Trade Unionism is really cutting his own throat. He may appear to win a triumph, and summarily to suppress any incipient combination among his "hands." There are, indeed, still some occupations, in some districts, even in Great Britain, in which Trade Unionism is unknown; and others in which it is still feeble. Thus, it is often quite possible for establishments to go on, even (as they think) prosperously, on a policy of suppression of Trade Unionism. We may remember how the wicked were said to flourish like a

green bay tree. But it may confidently be asserted that although such establishments may make profit, they will never achieve the maximum of productive efficiency. All they can ask for is slave labour; and, in nearly all cases, that is all they get!

Apart from these low-grade and exceptional industries, I suppose I shall nowadays find general concurrence when I emphasise the imperative necessity for industrial efficiency of a full and cordial recognition of Trade Unionism as soon as it appears among the employees. I am afraid that the earlier types of manager were often as ignorant and as stupid on this point as the old-fashioned employer of the early part of the last century, who would no more dream of negotiating with a Trade Union official claiming to represent the workpeople employed than he would have recognised a representative of his horses. Although Trade Unionism has not yet made good its footing in all trades in all parts of the country, especially in certain districts among women, and among the agricultural labourers and men of nondescript occupation, yet its position is now so firmly established in Great Britain, its advantages are by every section of the wage-earning class so thoroughly believed in, and its necessity for the economic

security of the wage-earner's Standard of Life is by the economists so completely demonstrated, that no professional manager has nowadays any excuse for hesitation or doubt.[1] A Trade Union is often, especially in its incipient stages, very imperfectly organised; its officials are frequently very far from possessing either the knowledge or the statesmanship required for their difficult task; but where any sort of Trade Unionism exists, it is only "asking for trouble" for a manager to flout any organisation which even a minority of the workmen have chosen to create. Whatever time may be taken up by the Trade Union official, by the grievances that he brings forward or by the interviews that he demands, depend upon it there will be, sooner or later, still greater difficulties, if the management takes up the old-fashioned attitude of declaring that it will "deal only with its own employees." Such an attitude cannot be intellectually justified. For the

[1] Every manager ought to understand Trade Unionism, its history, its objects and methods, and its present organisation. The books to be read are: *The History of Trade Unionism* (7s. 6d.), *Industrial Democracy* (12s. 6d.), *The Restoration of Trade Union Conditions*, 1917 (1s.), and *Problems of Modern Industry* (6s.), by S. and B. Webb; *Trade Unionism*, by C. M. Lloyd (2s. 6d.); *The World of Labour* (2s. 6d.); *Trade Unionism on the Railways* (1s.), and *Labour in War Time* (2s.), by G. D. H. Cole; *National Guilds*, edited by A. R. Orage, and the *Labour Year-Book for 1916 and 1917* (2s. 6d.). All these books can be obtained at the Fabian Bookshop, 25 Tothill Street, Westminster.

management to refuse to allow the workmen to be accompanied or to be represented by their own chosen agent or adviser is exactly as if the workmen were to insist on coming face to face with the company's shareholders (for it is these who are their real employers), to the exclusion of the company's manager, secretary, or solicitor. The mere fact that the management may find it easier to drive a bargain with the men themselves than with their more skilled official negotiators, is the very reason why these official negotiators ought not to be excluded. For such a plea is, in effect, an avowal that, in the absence of the Trade Union representative, the workmen will get worse terms than they would if he had been present,—which the workmen will think a remarkable testimonial to the value of Trade Unionism! It will be a confession that the workmen alone would be at a disadvantage in bargaining of which the management wishes to get the benefit. Now, this is where the professional manager's knowledge of human nature comes in. From the standpoint of securing the maximum efficiency of production, which is what it is that the manager has to achieve, nothing can be more fatal than to take advantage of the workmen in making a bargain with them. The old Jewish maxim that no bargain is a good

bargain unless it is one which genuinely pays, not one party only, but both parties, is even more certainly true of the wage-contract than of any other. If the workmen feel that they have been in any way "done" in the deal, good-bye to any hope of getting out of them the best that they can render. And for the management to refuse to let the workmen have the advantage of representation by their own skilled negotiator, when this is asked for, is inevitably—however fair and wise and benevolent the management may be—to arouse a suspicion of having been "done," which may very likely be as injurious in its effect on output, or on the avoidance of waste, as if the workmen had actually been cheated. The really able manager will go further. He will never allow the workmen, with or without the Trade Union behind them, inadvertently to make a bad bargain for themselves. He knows that the concern will lose more in efficiency than it can possibly gain on the wage bill, by any bargain with the workpeople which is not, for them, the very best that the circumstances will permit. He will accordingly be, in the drafting of the terms, as careful of the workmen's interests as of those of the establishment. He will see that the words used—the workmen are often extraordinarily incompetent in their use of

words—really express the substance of the agreement; that they are free from ambiguity, that they cover all the ground, and that they provide for all alternatives or contingencies that can be foreseen. He will know that it is just as much to the real interest of the establishment as it is to that of the workmen that the latter should not discover, when the new agreement is put into force, that it does not secure to them all that they themselves believed to have been conceded.[1]

It is only fair to add that, in the United Kingdom even more than in the United States, the multiplicity of separate Trade Unions in the same industry, and their disunity and disorganisation, will often give the manager some trouble.

[1] Neglect of this consideration lay at the root of nearly all the costly "Labour troubles," and calamitous suspensions of work, with which the Ministry of Munitions was oppressed during the years 1915–17. The Ministers and Government officials concerned were (not without reason), time after time, eager to get the Trade Union representatives to come to some agreement; and it seemed "clever" to take advantage of the workmen's incapacity to express themselves in precise terms, of their failure to realise what was the exact scope of the draft, and of their inability to remember all the varieties of conditions and all the contingencies to which the agreement would have to apply. The Government repeatedly got its agreements by resorting to vagueness, ambiguity, and the ignoring of difficult cases, and by preventing the men from having any opportunity to think over the draft put before them, or to consult their solicitors upon it —only to find that when the rank and file discovered that the agreement did not, in fact, secure what they had believed it to secure, they thought that they had been cheated!

Let him, however, not make this an excuse for refusing to recognise any Trade Unionism at all. The workmen will recognise his right to insist on having some responsible party with whom to negotiate; they will not seriously resent his refusing to be bothered, successively, by one rival Union after another; they will think it quite reasonable for him to ask all his employees to decide whom it is they wish to represent them, and to arrange to meet all the representatives together. What they will not stand is a refusal to deal with the Trade Unions at all.

V

THE STANDARD RATE

In the imperfectly organised industries (and this unfortunately means most of the industries of Great Britain and all but a very few of those in the United States) the question of wages will always be turning up in the sphere of management, either with regard to the amount of the payments to be made to particular operatives, or to whole grades of operatives, or else with regard to the method on which the workmen's earnings are to be computed.

It is sometimes pretended by optimistic British employers that there is really no question at issue here, as the Standard Rate is definitely fixed and is fully safeguarded by the agreements, whether national or local, concluded between the associations of employers and the Trade Unions. This ought, I need hardly say, to become the rule throughout industry, but it is

not yet the case. I readily admit that, in the course of the last few decades, a great deal has been done in this direction in the well-organised industries; and that in those industries the great bulk of the employers have tacitly abandoned the main contention for which practically all employers used to fight, namely that it was for each employer himself to decide what wages he would pay to his own workpeople. But to pretend that the question is settled, and that no disputes can reasonably take place on this issue, is—as I need hardly explain here—to put our heads in the sand.[1] In the whole range of British business enterprise, so far as I remember, there is only one important industry, that of cotton, in which the ground is at all fully covered. In other industries there are practically always a number of employers who, for good reasons or bad, are not parties to the Collective Bargaining of the industry's organisations, and who refuse to let their establishments be governed by the collective agreements arrived at. Moreover, even as regards those establishments which adhere to the national agreement,

[1] "The usual method of fixing wages in engineering works is for the foreman to offer the bare Trade Union rate in the case of workers where such a rate exists, *or as little as the individual will take where it does not*"! ("Industrial Reconstruction: an Employer's View," *The Athenæum*, March 1917, p. 135).

the standard wage rates therein formulated do not usually cover with precision all the classes of operatives employed; they often omit to include some of the kinds of work that has to be done, or some of the methods by which the work is performed; finally—and this is where the manager finds these Collective Agreements most often to fail in practicality—they are usually confined to time-rates, even in industries in which various forms of "Payment by Results" are in vogue, without any authoritative method of translating the Standard Time Rate into the piecework prices for the various jobs. In fact, though it is true that this old claim of the individual employer himself to decide what wages he would pay, which is now condemned by the Political Economists, and formally discredited by Parliament, has, among enlightened employers, in the well-organised industries of Great Britain, been abandoned, can we really pretend that it does not constantly crop up, in this industry or in that; and cause the management no end of trouble? It is an important part of the duty of a manager to use all his influence to get the Collective Agreements covering his industry made as complete, as exhaustive, and as practically operative as they are in the cotton industry; and thus finally get rid of the

idea of the old-fashioned employer that it is for him to decide what shall be the Standard Rates governing his establishment—and, let me add, dismissing equally the idea of the individual workmen, or of groups of workmen, that they can be allowed to bargain for themselves as to these Standard Rates (which, like the requirements of the Factory Acts, are always minima only, and do not prevent the employer granting more, or the workmen asking more, when it suits either party to do so).

For a long time to come, however, the manager will find himself, in most cases, in the United Kingdom as in the United States, in an imperfectly organised industry. He will therefore frequently have to deal with wages questions; and they will afford him great scope for showing what he is made of. It was exactly over these questions that the unscrupulous capitalist of the past made, from the standpoint of achieving the maximum efficiency, his biggest blunder. I am afraid that even professional managers are still sometimes failing badly in this respect, through ignoring the psychological reaction on the operatives of a particular wage-policy. They do not prevent the foreman, wherever there is no Trade Union rate plainly applicable—and this is often the case with regard to half the wage-earners

employed, notably the women and youths, the semi-skilled men and the labourers—from taking on a new worker (to use the words of an employer) for "as little as the individual will take."[1]

I have known managers who have actually prided themselves on continuously paying less than the local Standard Rate even to craftsmen; others who have boasted of the way in which they have evaded wage agreements, and got work done at lower rates than had been agreed upon, by simply changing the designation or the classification of the operatives or the distribution of the work; and others who have, as they say "got their own back," when they were driven to concede an increase, by some unexpected rearrangement of the factory. Why, only the other day, when a Lancashire colliery manager was condemned, in arbitration, to raise the wages of the hewers, he thought it smart to "counter" by immediately advancing the price of the explosive that the men had to purchase! Of course, the men retaliated, in all sorts of ways, by increasing dilapidation and restricting output; what else could he expect? In the so-called sweated trades, where the employer or the sub-contractor himself still manages, and where there is seldom anything that can be called a

[1] *Ibid.*

professional manager, it is, I fear, common to be perpetually "nibbling" at wages by charges for hot water, or for this or that requisite for the work; to make quite a perceptible sum out of the fines, or out of the deductions for bad work; and eagerly to seize every opportunity of lowering the rates. Unfortunately, these practices of the discredited "sweated trades" are far from being unknown in industries priding themselves on being on a higher plane. The records of the Trade Boards Department of the Board of Trade contain the most scandalous examples of these practices; whilst the trouble and loss that they have caused to the Ministry of Munitions is beyond all calculation.

Now, assuming the test of professional management to be the achievement of the maximum of productive efficiency, this is all wrong. It is not merely that the manager blunders when he actually pays less than the common Standard Rate, still more when he tries to evade it, or to cheat the operatives in any way. What is more, he fails in his business unless he makes his workpeople genuinely believe that he accepts the principle of the Standard Rate as if it were law. If it is vital for any genuine success in management that the machines should be of first-rate quality, and running smoothly, it is at least

equally vital that the human factor should be of the best possible quality, and that it should be working without friction. The machine does not kick, but the man does.

By the Standard Rate, as you will all understand, is meant, not just whatever any set of workmen or any Trade Union chooses to demand; but the rate at "time" or "piece" which, in all decently organised trades, has been agreed to as the minimum (remember, it is never anything but a minimum) for the district in the Collective Bargaining of the associations of employers and the associations of wage-earners; or—this is often forgotten—in the absence of any such agreement, the rate which in practice obtains for the wage-earners of like grade in the reputable establishments of the neighbourhood.

I do not pretend that this prime requisite of successful management is always an easy matter. It is not only that, as I have already mentioned, the Standard Rate that exists is often very far from being precisely formulated or clearly defined. There is often real difficulty in applying what is laid down as the Standard Rate to particular classes of workers or particular operatives. Each establishment is apt quite honestly to believe that it employs a special and peculiar kind of labour, to which no existing Standard Rate is

exactly applicable. *Bona fide* differences arise as to interpretation. All these are not reasons against the principle of never derogating from the Standard Rate. They are only opportunities for the manager to apply his brains to the problem. What is even more important, they avail nothing as excuses for failure in this essential point of management, because no apologies obviate, in fact, the falling away from the maximum productive efficiency which derogation inevitably and invariably causes. The problem is psychological, not legal or statistical. The essence of the matter is that you must never let any wage-earner in your establishment have any excuse for believing, and you must never allow him in fact to believe, that he or she is getting less than what is recognised in the locality by the operatives themselves as the common Standard Rate. The enterprise which does not understand this is, from the standpoint of maximum efficiency, lost. All the devices for nibbling at wages, whether or not in the employer they amount to cheating, amount in the manager to a professional blunder. He cannot secure the maximum productive efficiency from a factory staff which is subjected, or which believes itself to be subjected, to such treatment. What he can do is to muddle along, as too many

factories in Great Britain have hitherto muddled along; recruiting his staff, in the main, from workmen who are, in one or other respect, below par; extracting from them, by pressing and driving, an average output which is (as the war conditions of 1915–17 have shown) often less than half of what they might produce; and encountering at every point the sullen indifference and rancour which — imponderable as it is — perpetually drags down the aggregate efficiency of the undertaking. I am not now concerned with the shortcomings of the wage-earners, which are often considerable, nor with their own degrees of guilt. But it is clear that the manager who finds himself up against these subtle drags on efficiency must enquire whether he has not, even if only in small part, his own folly or incompetence to thank. Depend upon it, there is no factor in production so important as never permitting your operatives to think it possible that you could ever, under any temptation, knowingly derogate from the common Standard Rate.

I have sometimes been asked, by managers who are not strong in economics, whether it is not permissible, or even occasionally necessary, to reduce the Standard Rate (which, be it remembered, is that which other establishments have to pay—all the local competitors standing

on the same footing) in order to permit the acceptance of an order, or the maintenance of business, which could not be made to pay at the customary wage. My answer, as it would be the answer of any instructed economist, is emphatically no. To begin with, what right has anyone to assume, as if it were obvious, that the cut at income which the circumstances seem to require should be made off the wage-earners? Why should it be assumed that the interest on the capital employed must remain undiminished, that there must still be the same dividend on the preference and ordinary shares, that the allowances made to the working partners or the directors' fees should continue at the old amount, that the salary of the manager should stand at its customary figure, that the salaries of the clerks and accountants, the rates of commission of the commercial travellers and the agents, the wages of the gate-keepers and the foremen should be as before, in doing the unprofitable business, and that only the wages of the manual workers should be lowered? All these items are alike shares of the proceeds of the enterprise; and it is not surprising that the wage-earners (who are now often becoming better economists than their employers used to be) find quite preposterous the suggestion

that the loss should fall on them, whilst the other participants in the proceeds continue their receipts as before. As a matter of fact, it is the very decisive judgment of Political Economy that, far from being the class that should alone bear the loss, the manual working wage-earners, along with the salaried staff, ought to be the last even to be asked to participate in a loss. They are not invited to share the exceptional gains of profitable contracts. In all businesses there are ups and downs, lean transactions and fat, good years and bad. The wage-earners, like the salaried staff, are paid at commuted rates, ignoring these variations in profit; and the ordinary shareholders or other capitalist proprietors who have engaged in the business have done so on this basis. It is just for "standing the racket" of such fluctuations that they receive their profit. For them to seek to make the wage-earners (or the salaried staff) bear the burden of a specially lean transaction, or an unprofitable branch of trade, or an exceptionally bad year, is a breach of the fundamental understanding on which the industry is carried on.

It may, however, be said that these considerations of economics—or, it may be, of justice—are all very well; but that, so long as we allow

the nation's industry to remain under private control, the owners of the business simply will not undertake transactions by which they expect to make no profit, or may even foresee a loss; that any reduction of expenses to be effected by cutting down the directors' fees and the salaries of the staff would be insufficient; and that the practical alternative to a lowering of wages—which, it is always hoped, need only be temporary—will be to forego the order that would ensure continuity of employment, or even to shut down the works. *Even then the wage-earners would be advised by the economists not to yield to the pressure.* It will pay them better in the long run to refuse to lower their rates of wages—this policy has well paid the hand-papermakers and the hand-bootmakers in Great Britain even when threatened with the total extinction of their industries[1]—and the answer that the management ought to receive to any such proposition is that, to the wage-earners as to the community, the continuance of no one establishment is essential; and that it

[1] See, for complete elucidation of this problem, *Industrial Democracy*, by S. and B. Webb, pp. 418-20.

It is worth noting that the economists are emphatic on the foreign trade question. "General low wages," wrote John Stuart Mill, "never caused any country to undersell its rivals, nor did general high wages ever hinder it from doing so" (*Principles of Political Economy*, book iii. ch. xxv. p. 414 of 1865 edition).

is "up to" those who are directing the industry to find a way of carrying it on, if not in this establishment, then in others more skilfully administered, without encroaching on the workers' Standard of Life.

But the experienced manager will not raise such a question. He will know that it is not the rate of wages that makes a difference to the profit and loss account, but—what is a very different thing—the cost of labour. He will not be tempted to seek a reduction in the cost of labour by such an expedient as a reduction in the rate of wages, because his professional training will have taught him that this expedient (which may probably be urged on him by the less experienced proprietors) seldom achieves its end. If wages are cut by ten per cent, can he have any assurance that the workmen will not be so discouraged and annoyed—not to say deteriorated in strength and endurance—so to fall away ten per cent in aggregate output? Will they be so enthusiastic as before in doing their best? Will they be equally careful to prevent waste or dilapidation? The more experienced and more instructed the manager, the stronger will be his feeling that a reduction in the rate of wages, though it seems such an obvious way out of a difficulty, is hardly ever

the way in which the necessary reduction in labour cost can be achieved. And he will equally know that not by any lengthening of the factory hours, or by any increase of overtime or Sunday work can labour cost be lowered; or, except for a brief and costly spurt, even the aggregate output increased. The evidence all points in the other direction. Every reduction in the normal working week (which used to be, 150 years ago, as much as 90 or even 100 hours) down to the present half of that number of hours, has been accompanied by an almost contemporaneous increase in output per man. It is difficult to believe that "scientific management" has, in this particular year in any particular part of the world's surface, reached finality in this respect. The process of reducing the hours of labour and, by their more intelligent rearrangement, at the same time increasing the average output—incredible as this may seem to some—is obviously still going on.

VI

PAYMENT BY RESULTS

At the present moment (1917) it is not too much to say that British workmen have a feeling of grave apprehension as to their position after the war. It was not merely that the workmen have, unfortunately, lost all confidence in Government promises as regards the treatment of Labour. The employers, it is believed, simply will not consent to restore, in any genuine way, the *status quo ante bellum* as regards the conditions under which their factories are run; and what is doubted is the capacity, as well as the willingness, of the Government to enforce the restoration otherwise than nominally and perfunctorily. It is around the introduction or the retention of this or that system of Payment by Results that the storm will burst. Other dangerous topics, like the entrance of women or of unskilled men upon

the tasks formerly monopolised by skilled craftsmen, or the changing lines of demarcation between different trades, are themselves aggravated by the quarrels over piecework. It is very largely by its insistence on new kinds of piecework payment that the American campaign of "Scientific Management"—to which I shall allude later — arouses such bitter resentment. And it is the widespread enforcement, since the beginning of the war, of piecework systems of remuneration in different branches of the British engineering industry that will present the greatest difficulty to the Government in fulfilling its pledge that all the departures from the former practice and customs of the workshop shall be, without qualification, undone and reversed.[1]

The quarrel about payment by the piece as against payment by the hour is almost invariably misunderstood. It is often assumed that workmen, and especially Trade Unionists, object to piecework. So far is this from being the case, that the average workman usually prefers to get the chance of working by the piece, and, apart from the transport services, and the general labourers, a majority of the Trade Unions in

[1] See *The Restoration of Trade Union Conditions*, by Sidney Webb, 109 pp., 1917, 1s.

Great Britain absolutely insist on this system of remuneration. Nor is it true that employers invariably desire to pay by the piece. The London printing firms introduced over a hundred years ago, into what was then a piecework trade, payment by time as an employers' device; and the greatest strike in the boot and shoe industry was caused by the employers' attempt to abandon piecework for timework. Everywhere the particular class of employers known as sub-contractors seek to get the profit of their own capacity for "driving" by keeping all their workmen on time wages. On the other hand, in Great Britain, the cotton operatives and coal-miners, the tailors and boot and shoe operatives, the glass-workers and the steel smelters, the lacemakers and the cigar workers are instances of strongly organised industries, some machine workers, others handicraftsmen, in which payment by the piece is enforced by strong Trade Unions and accepted by the employers. This fact of itself negatives the curious delusion, still frequently entertained by employers and managers, that the workmen's objection to systems of Payment by Results—in the minority of cases in which they do so object—is wholly or mainly based on their dislike to the job being too rapidly completed, and to a fear that there

would presently not be enough jobs to go round. This fallacy — known to economists as the "Lump of Labour Fallacy"—founded on the belief that there is only a given quantity of business to be done, used to be commonly prevalent among all classes, the workmen not excluded. But if I judge correctly, it is now much more commonly to be found among employers and managers, when they are discussing international competition, or arranging for a concerted spell of "short time" or other limitation of production, than it is among the educated British Trade Unionists of to-day. However, it is quite true that, in the engineering, building, and woodworking trades, or at least in most of their branches, the employers and managers have not yet invented any system of Payment by Results which the great majority of the British workmen will agree to accept.

This has not been for want of trying. During the last three decades, engineering employers have devised lots of systems of premiums and bonuses for increased output, from Mr. Halsey's Canadian plan in 1890, through the various modifications of Messrs. David Rowan & Co. of Glasgow, and those of J. & G. Weir of Cathcart, down to those of Messrs. Barr & Stroud

and others in Great Britain,[1] and the bewildering variety of "reward" systems—such as those of Gantt and Harrington Emerson — in which, since the days of F. W. Taylor, the American "Efficiency Engineers" have delighted. All these systems, whatever their complications, amount, as it seems to the workman, in comparison with simple piecework, to nothing more than ingenious arithmetical scales for depriving the operative of part of the increased earnings that would be equivalent to the increase in his output.[2] For instance, when the workman produces twice as much as the basic output, the object of the Halsey, the Rowan, the Weir, and all the other scales appears to be to take care that he shall get less than twice the basic earnings, *irrespective of any improvement introduced by the employer.* The Weir scheme will give the workman one-half of the time saved, the Halsey scheme one-third of the time saved, the Rowan scheme a constantly diminishing fraction, so that even if the workman saves nine-tenths of the time, he can never do more than double his earnings.

[1] *The Premium System of Paying Wages* (Office of *The Engineer*, 33 Norfolk Street, London, W.C.2), 66 pp., 1917; *A Rational Wages System*, by Henry Atkinson (112 pp., 1917, 1s.).

[2] "There is, however, another plan, and that is so to arrange the premium that *under no conditions can the workman so far reduce his time* as to tempt the employer to cut the rates" (*The Premium System of Paying Wages*, published by *The Engineer*, 1917, p. 10).

This is put quite naïvely and candidly by the American "Efficiency Engineers." They have no intention of letting the workman have the proceeds of his extra diligence, speed, and intensity.

"We find," says Mr. Harrington Emerson, "we can double a 40 per cent efficiency by paying a bonus of 3·25 per cent; that we can double a 45 per cent efficiency by paying a bonus of 10 per cent; that we can double a 50 per cent efficiency by paying a bonus of 20 per cent; and that we can double a 60 per cent efficiency by paying a bonus of 40 per cent."[1] Now, the workman's increase of output under a system of "Payment by Results" is often partly due to some improvement effected at the employer's expense, such as the substitution of a more efficient machine, the use of high-speed steel, an improvement in the process, keeping the tools up to a higher degree of accuracy, supplying every requirement with the least possible waiting, and so on. In such a case there is a good reason for the employer sharing in the increased proceeds. But when no such improvement has taken place, there seems no ground in equity why an increase in output, which is then due, *ex hypothesi*, exclusively to the increased speed,

[1] *A Comparative Study of Wage and Bonus Systems*, by Harrington Emerson, 1912, p. 36.

intensity, and assiduity that the operative has put into the work, should not bring to him, as it does on simple payment by the piece, an exactly corresponding increase in earnings. The justice of this is admitted even by the advocates of premium systems which infringe it. "If there are no improvements by the employer, there is no reason why the employee should not get in full the increased result due to his greater diligence and skill."[1] The employer's gain from the increased output lies in the reduced cost of production, in that all the standing charges (rent, interest, depreciation, management, etc.) are spread over a larger output. Thus, these complicated "premium bonus" scales or "reward" systems are handicapped, from the start, so far as the workmen are concerned, by their apparent unfairness in this respect. This has been made one of the leading complaints against them.

They excite resentment, too, because they exhibit no comprehension of the workmen's fundamental objection to all the schemes of "Payment by Results" that have yet been proposed in the engineering, building, or wood-working industries. As is proved by actual experience in many other British industries,

[1] Harrington Emerson, in *Transactions of American Society of Mechanical Engineers*, 1903, vol. xxv. p. 78.

what the instructed workman and the properly led Trade Union object to is not piecework as such, or any other form of Payment by Results, but *every such system that is unaccompanied, not only by an accurate equivalence of the basic "Standard Time" with the Standard Time Rate, but also by quite definite security for the future maintenance of the standard rate of remuneration for effort.* And here, in the practically unanimous judgment of the economists, the workman is right. What is usually meant by the introduction of payment by results —as, for instance, in the engineering trade—is that, instead of paying wages per hour or per week *at a rate settled by Collective Bargaining*, the men are put to work on a succession of jobs the rates for which (or in the case of the "premium bonus" system, the times allowed for which) are, without concert with the operative, *fixed by the foreman*, or by the employer's rate-fixer in the office, separately for each job and for each workman.[1] There is, in

[1] This autocracy is frankly avowed. "The time allowed for any job will be fixed by the manager and heads of departments" (*Notes on the Premium System of Wage-Earning*, by Barr and Stroud, 1902). "Our friend has never thought for a moment that the man should have a say in fixing time for a job, which, under the premium plan, is only another way of fixing a price" (Letter from Mr. G. N. Barnes, M.P., in 1902, on another Premium Bonus System; in *The Premium System of Paying Wages*, p. 42).

practice, usually not even any pretence at bargaining; the rates are handed out, and it is a case of "take it or leave it." But even if the foreman or rate-fixer deigns to discuss the details of the rate with the workman, or with the Shop Steward, and to listen to his objections — the form of Individual Bargaining which has been called, in the engineering trade, "Mutuality"— the employer refuses altogether to submit the piecework rates, or the premium bonus times, to verification by the official of the Trade Union, or to enter into negotiations with the Trade Union about them, still more, to stereotype them in an inflexible printed list, or to let the Trade Union official himself fix them. The employer introducing such a method probably does not realise that, in effect, he is claiming to throw over the principle of Collective Bargaining, which the Trade Unions thought that they had got accepted with regard to wages; and to revert, in the vital matter of fixing each man's pay, to Individual Bargaining; or, more generally, to no bargaining at all. It will be at once realised that to raise this fundamental issue of Trade Unionism is to invite a serious conflict.

There is a further grievance. In some engineering works, and over certain jobs, with these complicated premium systems, the work-

men are not even permitted to understand how the amount of their earnings is computed. "On pay day the workman finds a few shillings extra waiting for him. He is not given the means of calculating how much premium he has a right to expect, nor of checking the amount received. If he is not satisfied with the premium he need not take it; there is no compulsion. He has his ordinary hourly wage without it. This is the position taken up by some employers."[1] The employer, in such cases, cannot get out of his head that it is a gratuity that he is offering the workmen—as if the firm were not obtaining in exchange actually more than the equivalent of the premium in effort and product! The workman, on the other hand, regards the premium strictly as part of the wages that he has earned by the sweat of his brow—and even the part that he has earned under the greatest strain—which it is vital to his interests that he should have precisely fixed by Collective Bargaining, and accurately calculated. Here the workman is so plainly right that the matter is not worth argument.

Usually, however, the general basis of the premium system has been more or less explained to the workmen. What is not explained to

[1] *The Premium System of Paying Wages*, p. 27.

them is how each of the particular "times" allowed for successive jobs — on which their earnings absolutely depend—is arrived at by the employer's rate-fixer. This is not due wholly to the refusal of the rate-fixer to explain. The verification of the basis and of the calculation of this "time" is anyhow practically out of the reach of the ordinary mechanic (as is equally the case with the earnings of the cotton operative under his complicated Piecework Lists); and he could obtain a satisfactory assurance that his interests were not being prejudiced only by having, like the cotton operative, his own expert representative (whether appointed for one factory, or for all the factories of each district), to check the figures of the employers' rate-fixers. This, I believe, has nowhere yet been conceded by any engineering employer. In principle, it seems to me only fair, if these things are made matters of bargain, that the workmen should have their own rate-fixer, to agree with the employer's rate-fixer, on this all-important element of the wage-contract. The principle of allowing the workmen's paid expert to examine and check the calculations made on behalf of the employers has long been admitted in Great Britain in wage-arbitrations and sliding scales, where the selling prices

actually obtained by the employers, and sometimes other details, are not accepted from the employers themselves but are habitually ascertained independently, from their books, either by an agreed firm of public accountants, or by two public accountants, one representing the Trade Union and the other the Employers' Association. An even closer analogy is afforded by the statutory "check-weigher" in a colliery, whom the coal-hewers may, under the Mines Regulation Acts, resolve by ballot to appoint, at the expense of all the men in the pit; and who is statutorily authorised to claim access to the records of each man's weight of coal sent up to the surface, so that he may be able to verify the accuracy of the sum eventually tendered to each man as his fortnightly wages.

I have heard some employers — some professional managers even — express surprise at the obstinate resistance shown by the Trade Union, or their own workmen, to the introduction of piecework or other systems of Payment by Results, after the utmost care had been taken by the management to ensure that the piecework rates, or the premium bonus times, should be fixed, *at the outset*, in an exceedingly liberal way, so as to enable every man to earn at least the old customary Standard Rate. This

surprise or wonder at the "unreasonableness" of the workmen reveals that such employers or managers still do not understand the workmen's objection; nor why it is that Political Economy is now in this matter so emphatically on the workmen's side. What the workmen are thinking of is not their own wages, but wages in the future. The workmen feel that when the fixing of the piecework rate or the premium bonus time for each successive job remains in the hands of the employer, or of his paid agent, the men have no assurance that if they put the utmost possible energy into their work, and increase their speed and, consequently, their output—at greatly increased strain to themselves, and waste of tissue which has to be made good by increased food—the foreman or rate-fixer will not reduce the piecework rate allowed for the next job. In fact, it has been the habitual practice in the past, as has frequently been admitted, in all sorts of trades, all over the world, to "cut" piecework rates, whenever the workers were found to be habitually making more than the employer thought to be a reasonable wage.[1]

[1] One employer told me that he had been "compelled" to cut the rates (though he was thereby committing an offence against the law, and nominally risking prosecution in the Munitions Tribunal), because his workers increased their output, and therefore their earnings, to such a degree that they became so prosperous that they

Sometimes this has been done peremptorily and brutally; often by an ignorant foreman or office-clerk. Sometimes, I am ashamed to say, it has been done secretly, without letting the workman know of the reduction—an act of robbery. Sometimes it has been subtly concealed by being done on the substitution of one man for another; sometimes it has been done even more insidiously—this is often not recognised by the employer as being a cut at all—when a new rate has necessarily to be fixed for a new job, and the change is made, not in correspondence with the amount of deviation from the old job, but with a complete revision of the original basis, *taking advantage of the new standard of output that has been set up.*

kept bad time. He cut the rates drastically and "bluffed" the workers into accepting his cut, so as simultaneously to increase his own profit and to impoverish the workers to the extent necessary to drive them to work full time. He saw no immorality in such behaviour, and continued to be quite unable to understand why systems of Payment by Results are resented.

It is sometimes asserted that, whatever may have been the case in simple piecework, rate-cutting does not—it is sometimes naïvely said cannot—take place under a "scientific" premium bonus system. But neither the men's experience nor the employers' statements bear this out. We read that the miscalculations in fixing times under the Halsey system have "led in more than one case to cutting" (*The Premium System of Paying Wages*, 1917, p. 47). "The dangerously rapid rise of rate by Weir's plan . . . has resulted in cutting in more than one works" (*ibid.* p. 57). "Cutting in a lesser degree is, however, exceedingly probable when the ordinary Halsey system, either at 30 per cent or 50 per cent division, is employed. The two largest users of this method in this country have both cut at various times" (*ibid.* p. 58).

The quarrel is, of course, not a new one. A very instructive instance will be found in the *Life of William Denny*, in the experience of that distinguished shipbuilder of Dumbarton. He himself relates how he used to denounce the folly of workmen in resenting systems of Payment by Results. After many years, however, he realised that—whatever might be the virtuous intentions of himself and his partners—the foreman, and even the heads of the several branches of the establishment, simply could not refrain, in their zeal, from regularly cutting rates whenever they thought the workmen were "getting too much." His remedy was the not very satisfactory one of setting aside one of the partners of the firm to go regularly through all the pay-sheets, and insist on seeing that in no case was the rate cut beyond what he thought necessary; and on every workman being paid what he (the partner) thought enough.[1]

We may recognise a marked change of opinion among employers and managers on this subject of rate-cutting; and this change, though it is to be hailed as an advance in morality, makes it difficult to discuss the subject with particular firms. A generation ago hardly any employer

[1] *Life of William Denny*, by A. B. Bruce, 1889; *Industrial Democracy*, by S. and B. Webb, pp. 293-7.

was ashamed of rate-cutting. Nowadays, most reputable firms disclaim it; and proclaim that in their own practice it only occurs in quite exceptional circumstances, when, like William Denny, they assume it to be justified. We may wholly accept these assurances; but the records of arbitration and other proceedings prove that, *in other establishments* in the same industry, rate-cutting still prevails; sometimes systematically—we can hardly say unblushingly, because the principals usually disavow any knowledge or sanction of it—but the rate-fixer or foreman cannot apparently get it out of his head that it is his bounden duty to adopt the practice. "What can one do," remarked one naïve foreman in 1915, "when a girl is earning as much as fifteen shillings a week, but lower the piece-rate."[1]

[1] *Report of the Chief Inspector of Factories*, 1915, p. 49. Among the employers themselves the change in opinion, and the development of compunction about rate-cutting, has taken place at different rates, and to different degrees, in different parts of Great Britain. Thus, I have been informed by (perhaps optimistic) engineering employers that there is now (1917) next to no cutting of rates among the Clyde firms. On the other hand, it is admitted still to take place among engineering firms in the Midlands, Lancashire, and Yorkshire. Abundant evidence has been found by the Ministry of Munitions and by the Trade Board Department of the Board of Trade—not to say also the Factory Department of the Home Office—that it is more widely prevalent in Great Britain than the best employers are aware, or can easily believe. "It is not the practice of the best employers," said the Minister of Munitions in 1917, "*but it is adopted by many*" (Hansard, June 28, 1917, p. 586). In the United States it seems to be still almost universal.

It must be remembered that, even where the workmen have learnt to trust the present principals in an establishment, who promise and assure them that rates shall never, under any circumstances, be cut, the workmen (*a*) are never offered any legally binding guarantee to that effect (which would, indeed, be almost impossible to contrive), so that there is no assurance that the employer may not (like William Denny) subsequently change his mind; (*b*) are not afforded any opportunity of controlling, or even of verifying, the basis on which the changing rates are from time to time actually computed—a position of helplessness in which the employer would never dream of placing himself with regard to the most reputable and trustworthy contractor for materials; and (*c*) are offered no protection for the future maintenance of the rates in the event of a change of management or of proprietorship; perhaps the merger of the firm in a giant concern which is known to make a practice of rate-cutting! In fact, the bargain offered by the most honourable and humane firm is, from the point of view of a legal safeguarding of the men's future interests, plainly not one which any solicitor could advise the workmen to accept as a matter of business.

Now, I do not want here to go into the question

of the morality of "cutting rates." I prefer to deal with it in this connection solely with regard to its effect on industrial efficiency. If a workman who has been receiving forty shillings a week as a time wage (assuming this to be the Standard Rate) is put upon piecework, or is persuaded to accept a "premium bonus," or some other system of "reward" dependent on his output, the object of the employer is to induce him to labour more diligently, to put more intensity into his work, to avoid every possible waste of time or material —in short, to "speed up" his production, and, with it, his expenditure of energy, physical or mental, as compared with work at the hitherto customary speed. Assuming, as we may, that the piecework rate or bonus time is calculated, at the outset, on the basis of the timework wage— say at "time and a quarter" or "time and a third"—any increase of output or of industrial efficiency (above the fraction allowed over "time") is wholly profitable to the employer. If the workman, stimulated by the prospect of increased earnings, manages to turn out half as much again, or (as occasionally happens) twice or three times as much, and (on a simple piecework system) draws, at the end of the week, a correspondingly increased amount of money, this is no loss to the employer. The labour cost of

each article has not been raised in the very least.[1] It is, on the contrary, a net gain to the employer, notwithstanding the great increase in the man's earnings, because the oncost or standing charges — the rent and interest, the allowances for insurance and depreciation, the office expenses, the salaries of the managerial staff, and all the rest of them—will now amount to a smaller "loading" on the labour cost of each article produced[2] — to say nothing of all the indirect advantages of expeditious execution of orders, compliance with customers' desire for haste, etc. Hence, as it seems to the workman, *there is absolutely no economic or ethical justification, and no commercial compulsion, for a cutting of piecework rates,* merely because it is found that this and that workman, or the whole of the pieceworkers, are "making too much"—

[1] It is extraordinary to find this still not understood by engineering writers. "A workman may gain such dexterity at piecework as, by largely exceeding the original output, *to make the labour cost of a given article excessive*" (*The Premium System of Paying Wages*: published by *The Engineer*, 1917, p. 6). This is, of course, not the case. However great may be the workman's earnings at piecework, they effect no increase in the labour cost of the article. "There is then the tendency," proceeds our expert, "on the master's part, to cut the rate, with the result, generally speaking, of trouble."

[2] "It must be remembered that in the engineering trade standing charges and interest on cost of machinery amount to several times the wages bill" (Presidential Address of Mr. Michael Longridge to the Institution of Mechanical Engineers, April 20, 1917, p. 328).

making, that is to say, by hitherto unprecedented celerity or intensity of effort, or continuity of work, the three or four, or even the six or eight pounds a week that the employer chooses to regard as "too much" for any workman. The employer is not losing by it—*his profits are actually being increased by reason of the increase in the man's earnings.* The customer is not losing by it; the labour cost of the article is actually lowered. All that has happened is that the workman, invariably with a greater expenditure of effort, and an increased strain on his constitution, involving (at the very least) a greater expenditure on food, has been induced to work harder, to work quicker, to work more incessantly, to work more economically than before. The height of the pieceworker's earnings ought (so long as the worker does not overstrain himself physically or mentally—a very important point) to be regarded as a triumph of management.

But now what does the stupid employer do—and I fear, also, sometimes the stupid professional manager, who ought to know better? Because he can't bear to see the "mere workman" draw so many pounds at the end of the week, because he finds that the workmen are, as he quite frankly says, "earning too much," he cuts the

rate.[1] The workmen believe that, whether the employer expressly orders it or not, the foreman or rate-fixer *practically always does cut the rate* in this way, sooner or later, frequently on the occasion of a change of worker or of some variation in the job. It has, in fact, been proved by a whole century of experience, in trade after trade, in almost every country, that piecework rates are—unless properly safeguarded—thus liable to insidious degradation; so that, if nothing is done to prevent it, the men run the risk of finding themselves, year after year, doing more work in return for smaller and smaller earnings; and the whole security for the maintenance of the Standard Rate of remuneration for effort, and with it the standard of life, disappears.

The temptation to cut the rate is increased by the fact that periodical revisions have necessarily to be made. When improved plant is put in, or special jigs or fixtures introduced, or some improvement of the process is devised, by which

[1] "Cutting the piece price is simply killing the goose that lays the golden egg," says one of the ablest of the advocates of systems of "Payment by Results." But he continues, in words which are a revelation of the employer's state of mind, "Nevertheless the goose must be killed. Without it the employer will continue to pay extravagantly (!) for his work; with it he will stifle the rising ambition of his men" (F. A. Halsey, "The Premium Plan of Paying for Labor," *Transactions of the American Society of Mechanical Engineers*, 1891, vol. xii. p. 756).

the "efforts and sacrifices" of the workmen are decreased, it is only reasonable that the old rate should be revised; and the Trade Union accepts this revision as being in strict conformity with its demand for a maintenance of the Standard Rate, that is to say, for uniformity in the rate of payment per unit of effort.[1] But when no such improvements have been introduced, and the job changes merely in size or shape or content, the new rate ought to be arrived at, not *de novo*, on the day-rate basis, but strictly by a deviation from the old rate exactly proportionate to the variation in the amount of labour involved. This is the practice under the Piecework Lists of the boot and shoe trades, when a rate has to be fixed for a pattern differing from those listed. Otherwise the rate *is* being cut!

Now, without stopping to argue whether this is so or not, what the practical manager has to consider is what will be the effect of the men getting to believe that their piecework rates will be cut, or that the system of Payment by Results that he introduces does not, in fact, afford an

[1] "There are, of course, certain conditions under which the employer is, in fact, justified in reducing the rate, for example, the substitution of a new and better machine for an old one. When high-speed steel was introduced into their works, David Rowan & Company reduced rates by 10 per cent, *with the men's agreement*, but in no case were smaller premiums earned" (*The Premium System of Paying Wages*, published by *The Engineer*, 1917, pp. 26-27).

automatic safeguard against the rates being cut. Surely, it is as plain as sunrise that the result will be one or other form of "ca' canny." The "two customs," as the Minister of Munitions learnt by sad experience, "are dependent upon one another. . . . The cutting of rates of pay on piecework so as to limit the rise of earnings . . . has invariably led to the second and retaliatory practice of restriction of output."[1] The experiment has now been repeatedly tried. In one establishment after another in which the management has succeeded in coaxing or bullying the men into a piecework or "premium bonus" system, without Collective Bargaining over the successive rates, and without the security of a fixed Piecework List, the men have quickly found, or at least have believed that they found, that any increase of output was used against them, and that it led to a silent reduction of rates in future jobs; and this fraud by the employer, as they deemed it, was met by reprisals, in the form of a more or less definitely concerted "stint," or limit to the output that each man would make. When piecework rates are cut, "the act of cutting them is looked upon as a declaration of war. The employees consider it the violation of an agreement. The conclusion

[1] Hansard, June 28, 1917, p. 586.

in many cases is that the management introduced the first rates as a bait to induce the men to reveal how much they could do, while the second rates constitute the springing of the trap, which is designed to hold the men for the new standards of working, while not allowing wages to exceed a certain moderate excess over day wages. The response of the workman to such a policy is to oppose the introduction of piece-rates, but where they are established to 'soldier' as much as possible while the rates are being set, in order to get a long time base, and then to control the pace, so that the wages earned will never rise above the point which is thought to be the maximum the employer will allow. At that rate performance is pegged, and held, against all efforts of the management to increase it further."[1] This is the American experience. That of Great Britain has been, in trade after trade, much the same. Thus, the employers' plans of Payment by Results, although they had produced a certain increase, had proved, in the engineering industry in Great Britain before the war, as a device for securing the maximum output, nearly as great a failure as timework had been; and a failure that led to mutual recriminations and

[1] *The Administration of Industrial Enterprises*, by Edward D. Jones, 1917, pp. 251-2.

allegations of fraud. Instead of a steadily rising output, there was presently a stationary or even a falling output per operative.[1] This is the inevitable reprisal of the workshop to what was believed to be a cutting of rates. And it is of no use to condemn the workmen for defending themselves in this way against being, as it seemed to them, first lured into giving a great deal more energy and effort for their wages, and then deprived of part of those enhanced wages. The manager who seeks to cut piecework rates or reduce bonus times, otherwise than in exact correspondence with some demonstrable reduction in the amount of work involved, proves him-

[1] "The following is an example of what happens under an ordinary bonus system when times are reduced. . . . The original piece time allowed for the work was five hours, this being an estimate based on the time taken when working under day work. . . . The workers completed the job in four hours. . . . The time was cut to four hours, and the work was done in three and a half. . . . It was then cut to three and a half hours, and the workers completed the job in three hours. Again the time was cut, but the patience of the workers had reached its limit, and the time taken was seven hours. . . . The time was immediately increased to four hours, but with no effect. On increasing the time to the original five hours, the workers completed the job in three and a half. . . . Once again the time was cut, with the result that "the workers' suspicions were aroused, and the time promptly jumped to seven hours. *The workers had learnt their lesson.*" In this case the labour cost, which had begun at 8s. 10d., gradually sank to 6s. 5d., but jumped up to 14s. when "the workers had learnt their lesson!" (*A Rational Wages System*, by Henry Atkinson, M.I.C.E., 1917, pp. 27-8).

It is difficult to know whether to blame most, the dishonesty or the stupidity of the management which can teach the workman such a lesson.

self to be inadequately trained for his profession of manager. He is ignoring human nature. To put it bluntly, from the standpoint of achieving the maximum production, he is behaving like a fool.

The problem is — assuming Payment by Results to be superior in many respects to fixed Time Wages—how to devise a system which gives the workmen, individually and collectively, not merely the appropriate initial earnings, but also at least the same degree of effective control against an insidious lowering of the rates as employers have, in all decently organised trades, long ago conceded with regard to Standard Time Rates. If any employer or manager thinks that the clock can be set back, and the organised workmen deprived of that sort of control, I am afraid that I cannot congratulate him on his perspicacity. We shall not nowadays, in Great Britain, go back on the Principle of the Common Rule, as applicable to wages; and in the fixing and application of that Common Rule, the workmen, whether by Collective Bargaining or by Statutory Wages Boards, or in some other way, are inevitably going to have a greater, not a smaller share. I venture to suggest that the employer of the future will individually have the option of engaging or continuing in the

industry, and of deciding what products shall be made; but he will not be allowed to decide individually or autocratically, either what wages he will pay, or what hours shall be worked.

Now the problem of how to get an acceptable system of Payment by Results, alike in the engineering and in the building and woodworking industries, is one into which more brains will have to be put; and it is up to the employers and managers, much more than to the manual workers, to find the necessary brains. Clearly what we have to get rid of is the uncontrolled "one-sidedness" of the employer's decision as to the rate or premium bonus time to be allowed for each job. Some such arrangement as that of the "checkweigher" in the coal-mining industry will need to be made, so that the arithmetical basis of each man's earnings can be checked and verified by the expert representative of all the workmen, who will probably (like the checkweighman) be nominated and paid by the workmen themselves. Whether such an official will be developed out of the "Shop Steward";[1] whether he will (like the

[1] The Shop Stewards are recognised by the engineering employers of the Clyde (and in most districts of the North of England) as "the official Trade Union representatives in the shop"; and their duties, as stated by a leading employer, "comprise reporting any grievances, keeping a strict eye that no infringement of Trade Union rights

"Father of the Chapel" in a printing establishment) continue to work at his trade, and merely exercise his functions of verification and audit of the men's earnings in the intervals of his own jobs; or whether he will be a salaried officer of the Trade Union, like the secretaries of the Cotton Operatives or the "Investigators" of the Boot and Shoe Operatives, will be a matter for the workmen's consideration. Moreover, there may possibly be two such officers; one acting for a workshop, and confining himself (like the checkweighman) to verification and audit of the earnings according to the agreed basis; and the other serving all the workshops of the industry within each district, and called in (like the secretary of the Birmingham Brassworkers) only when a rate has to be fixed anew, either on a change of process, or on a variation of material, or merely on some difference in the size or shape of the article to be made. It is difficult to see how, without some such arrangement, the workmen can be expected to feel any assurance in the honesty and accuracy of the

takes place, and generally the safeguarding of the interests of the Union in individual shops. In many cases their functions are performed with judgment and discretion, but they exercise in almost every establishment an intangible but very real effect in moulding the management and conditions of the shop" (*Some Aspects of Labour and its Claims in the Engineering Industry*, by J. R. Richmond, 1917, p. 13).

calculations of the employer's foreman or rate-fixer; or any confidence that, at some future date, the employer or the manager may not, quite honestly, decide that it is necessary or permissible to lower the rate or reduce the time. If the employer or manager would, for a moment, imagine himself in the workman's place, he could not fail to realise that no man of common sense could feel any confidence in a decision where, without verification, control, or audit, either joint or independent, one of the parties to a bargain insists on settling, without appeal, a complicated issue which vitally affects the bargain for the other party.[1] Obviously, no

[1] I assume that it is unnecessary to warn you, in the twentieth century, against the delusive and discredited idea of "Profit-sharing," which is anathema to the workmen, and may be relied on (except with quite unorganised and defenceless workers) to create friction, distrust, and trouble. So long as the "capitalisation" of the concern, the fixing of the rate of interest on capital, the determination of the remuneration of the managing partners or directors, and of the salaries of the management remain beyond the control of the wage-earners—to say nothing of other methods of "cutting the melon," and of carrying sums to depreciation, reserves, and repayment of capital—any plan of profit-sharing is in the nature of a "blind pool," in which the operatives have not the least security that they will not be defrauded. "In this light the profit-sharing plan is seen to be an agreement between two parties, the first of which has every temptation and opportunity to cheat the second, while the second has no means of knowing if he has been cheated, and no redress in any case" (F. A. Halsey, "The Premium Plan of Paying for Labor," *Transactions of the American Institute of Mechanical Engineers*, 1891, vol. xii. p. 756). See for other objections, *Profit-sharing a Fraud and a Delusion*, by Edward R. Pease (Fabian Society, 25 Tothill Street, Westminster, price 1d.).

employer or manager would allow the workman such a privilege. The workman has, therefore, the support of public opinion, as of Political Economy, in refusing to allow it to the employer. No one can be trusted to be judge in his own cause.[1]

It must be owned that the problem thus presented to the manager in an engineering establishment is a hard one. If piecework has been introduced, or one of the various systems of bonus or reward, the task of arriving at exactly the right rate for the job, or the "base time" or "standard time," is one of great complication and difficulty. This is an old story. Already in 1727, in a manual of estate management, naïve directions were given how the piecework rate is to be fixed. "Also if any new sort of work is to be done, not mentioned in the following particulars, the Steward's best way is to hire a good labourer, and to stand by him the whole day, to see that he does a good day's

[1] The necessity for the participation in the fixing of rates or times for particular jobs is coming slowly to be recognised by British advocates of bonus or reward systems. "The Trade Union must also see that time studies are properly made. . . . The Trade Union engineer should be sent to the factory to study one or two representative jobs. He will do this side by side with the employer's engineer. . . . A comparison between the times thus obtained, and the firm's standard times will show at once whether the complaint is well-founded" (*A Rational Wages System*, by Henry Atkinson, M.I.M.E., 1917, p. 46).

work, and then to measure the same, in order to know what it is worth."[1] In the hurry of modern industry such close and continuous supervision is often unpracticable. A workman or a set of workmen will be given a new job to do "on time" to see how long it takes. We cannot ignore the fact that cunning is met by cunning; and that whenever a new rate has to be fixed for a new job, and there is an experimental working of a provisional rate, the workmen set their wits against those of the rate-fixer, and sometimes display a most astonishing capacity for concealing the speed at which they are really able to complete the job. If I were addressing a meeting of workmen, I should deal fully with their shortcomings. But for our present purpose it must suffice to recognise these practices merely as difficulties with which the management has to cope. The employer, or rather the foreman, retaliates, first of all by driving as hard a bargain as he can over the piecework rate; and then by cutting the rate if he thinks he has been "done" by the concerted limitation of output by the workmen.[2]

[1] *The Duty of a Steward to his Lord*, by Edward Lawrence, 1727; *Industrial Democracy*, by S. and B. Webb, p. 292.

[2] The position is thus described by an engineering expert. "A job is priced at, say, 1s. An average man whose rate is 40s. a week will earn about 50s. a week on that job by diligent work. Then a

The only remedy seems to be that those managers who wish to substitute a system of Payment by Results for a timework wage must "study the job" in the way that the American "Efficiency Engineers" have taught us; and determine (unlike the American practice) *jointly with the Trade Union official*, and with his agreement, what is, objectively, and independent of the volition of any particular workman, the time necessarily taken by an average man, with reasonable diligence. This is not a matter which the employer can claim autocratically to determine. He must, if he is to secure the cordial and continued assent of the workmen, consent—as all the employers in the very suc-

---

really first-class man comes along and earns 80s. What follows? If Smith can earn 80s. it is evident that the price is too high, and the other workers are slacking. That is the natural argument of the employer, and down comes the rate. Cutting rates is one of the most frequent sources of trouble on piecework, but it cannot be avoided. The worker knows that the rates will be cut, and therefore two methods of defence are open to him. First, he always works slowly on a job until it has been priced. In this way a good price is obtained, a price which enables the slowest worker to earn his wages—and a bit above—easily. Second, the worker takes care not to earn too much. It is arranged between the men how much each ought to take on a certain job, and the arrangement made is carried out. This is, of course, dishonest, but it is necessary. For suppose a good worker comes on the job and does his best, the price comes down to everybody, and the average man cannot earn his wages. The good man is therefore compelled to be dishonest to his employer, or unfair to his fellow-worker" (*A Rational Wages System*, by Henry Atkinson, M.I.M.E., 1917, p. 7).

cessful Lancashire cotton industry have long ago consented—to let the study of the job be a matter for Collective Bargaining, and joint decision by the expert officials representing the two sides to the bargain. The question is by what devices or with what machinery this can be best done.

What is often not realised by managers in the engineering, building, and wood-working industries is that exactly the same kind of intellectual problem has plagued other industries in the past; and in some it has been more or less satisfactorily solved. The difficulty has been overcome—notably in cotton spinning and weaving, and in boot and shoe manufacture—by the device of the Piecework List, the elaborate statement, arrived at by Collective Bargaining, which fixes the price or rate for every conceivable job and provides in advance for variations of rate in exact proportion to the amount of variation from the nearest listed pattern, the whole being practically imposed on every employer and on every district by the national Employers' Associations and the national Trade Unions, and applied to particular cases by paid officials, representing the employers as a whole and the workmen as a whole, or by an umpire chosen by the couple, independent of either the indi-

vidual employer or the individual workman concerned. This device of the Piecework List may be inapplicable to the present stage of development of the engineering or the building industry—though I should be a little slow to believe this to be a complete objection—partly because the successive jobs are often so widely different from each other, and partly because the relative amount of machinery and labour-saving devices differs so materially from establishment to establishment. But "shop lists" preceded District Lists, and District Lists National Lists, even in the cotton industry; and there does not seem any obvious impracticability in "shop lists" being framed, and jointly established, in the several factories, for all the steadily increasing amount of standardised or repetition work.

Another device, which we may call that of the Joint Rate-fixers, is one which has been successful among the coalminers in Northumberland and certain other districts. Here the problem is to translate an agreed day rate into an appropriate piecework rate per ton of coal hewn in "places" of very varying ease of working. This rate is fixed for each place in each seam in each colliery, on the application of the management or of the miner, by a couple of salaried

officers, both independent of the particular concern, who find no difficulty in agreeing, one representing the Coalowners' Association and the other the Trade Union. And lest any managers of engineering works may think that the example of a coal-mine can teach them nothing, I may remind them that essentially this same device has long worked with complete success in the Birmingham brassworking trade — actually a humble branch of engineering — where the employers habitually have a new job "priced," practically as by an independent rate-fixer, by Mr. W. J. Davies, the very experienced and trusted Secretary of the Brassworkers' Trade Union.

Short of any such system of joint fixing of rates there is the imperfect solution hit upon some years ago by some of the districts of the Amalgamated Society of Engineers, which we may call the Device of the Guaranteed Minimum for Piecework Intensity, namely the agreement with the employers that, whilst the piecework rates should always be uniform for all the men, no man employed in any shop in which Payment by Results prevailed—whether or not the individual happened to be thus paid—should ever draw less than "Time and a Third" for the week's work, however little his own piecework earnings

might fall to. The economist could not advise the Trade Unions to accept this Device of the Guaranteed Minimum for Piecework Intensity as any security against a cutting of rates. This would still remain within the employer's power. Nor could the economist advise the employer that this device would (unless the employer or his rate-fixer were exceptionally careful) prevent all "ca' canny." But the employer or his rate-fixer would know that if the rates were cut to such an extent that the slowest man in the shop —the slowest whom the employer elected to retain at all—did not, in fact, earn "Time and a Third," the men would not be stimulated to piecework intensity of effort, and that (secure of that minimum) they would drop back to time-work speed. Any cutting of rates would thus, at least, work within the friction-brake of it not paying the employer to cut below that minimum; and, if the employer and his rate-fixer always remembered this fact, and never made mistakes, there would be little temptation to "ca' canny."[1]

[1] There is less objection on the part of the employees to systems of "Group Piecework," but they necessitate, no less than do systems of individual "Payment by Results," effective protection against a subsequent cutting of rates. The basic Standard Rate requires equally to be fixed, and its equivalent in piecework rates secured, by Collective Bargaining with the Trade Union (not merely with the group of workers concerned). The "Group Bonus" granted by

Finally, I do not know whether employers in the engineering industry will take seriously the proposal made by some Trade Union Branches, when pressed in 1917 to substitute a system of Payment by Results for the time rates to which the workmen had been accustomed, that the change might be agreed to on condition that the pricing of the successive jobs was left *to the workmen themselves.* After all, when one comes to think about it, it seems no more unreasonable for the seller of the commodity—in this case, labour—to fix the price (which the buyer may accept or refuse) than for the buyer to fix the price, for the seller to accept or refuse. In the abstract, the men appear to be as much entitled to name a price for the labour that they put into each job, as the capitalist employer who is the purchaser of that labour. With the proviso that the basis of computation shall be the Standard Time Rate (say "Time and a Quarter"), and with arrangements for a prompt appeal against an erroneous calculation to a

---

Cadbury Brothers, Limited, to some of its workers, where the bulk of the remuneration is by way of time wages, but a bonus dependent on the group output is, in addition, shared by the workers in each group, requires, in theory, the same safeguards to ensure that some subsequent management shall not be able to vary the terms or reduce the time wage or the bonus, without Collective Bargaining (*Experiments in Industrial Organisation*, by Edward Cadbury).

couple of officers independent alike of the particular firm and of the particular workmen, and charged, by the Trade Union on the one hand and by the Employers' Association on the other, to maintain absolute uniformity between job and job in the rate of payment per unit of effort, the plan of letting the workmen put their own price on their labour may, in particular cases, be worth consideration.

What has ultimately to be found, for the smooth running of any industry, is, however, some system which can be made of general application to all establishments in each industry. The very great lack of uniformity of equipment among engineering workshops, even those making the same articles, here presents itself as a difficulty to be overcome. Further, what is everywhere required is some automatically working device for ensuring that the payments for successive jobs in the same shop shall be absolutely and inflexibly uniform in the rate per unit of effort; and for ensuring that this same inflexibly uniform rate shall be as identical as the Standard Time Rate for all the establishments in the same district, and, indeed, all over the kingdom.[1] Until this is

[1] It may be said that employers will not submit to any outside control over the piecework rates or bonus times for particular jobs.

discovered for the engineering and building trades—as it has been in the cotton trade —and the workmen and their Trade Unions are thereby put in a position not only to verify the calculations but also to detect and prevent any future degradation of rates, our progress will be imperfect. The employers may be warranted in their feeling that some system of Payment by Results is necessary for efficiency; but the Trade Unions are no less justified in asking the employers—before inviting the workmen to give up what the economists tell them is an indispensable safeguard and protection of their Standard of Life—at any rate to wait until those who advocate the new system of remuneration have so perfected it as to make it give at least the same degree of security to the workers as it offers in the way of advantage to the employers.

The future organisation of industry is going

But some such control over piecework rates—both collective, ousting the individual employer, and joint, foregoing the employers' autocracy — is now contemplated by the most enlightened representatives of the employers. Thus the President of the Institute of Mechanical Engineers for the current year (Mr. Michael Longridge) proposes that the "District Executive" of the "British Engineering Association" would "be charged with the oversight" of all the firms in the district. "*In conjunction with the district officers of the Trade Unions they would arrange rates of wages and piecework*" (Presidential Address, Institution of Mechanical Engineers, April 20, 1917).

to involve two leading principles from which employers have hitherto shrunk, namely, as regards all the arrangements of their factories, the most complete Publicity; and, as regards the remuneration of the workmen employed, the most minutely accurate Measurement. Both are needed to permit of the fullest advantage being taken of Collective Bargaining. Are the Works Managers of to-day prepared to advise their employers, as the President of the Institution of Mechanical Engineers has recommended,[1] that not only Standard Time Wages but also piecework rates or premium bonus times should be settled, not by the individual management, but jointly, for each district, by the Associations of Employers and the Trade Unions?

Returning to the immediate problem involved in the "Restoration of Trade Union Conditions" after the war—in so far as this means discontinuing all the systems of Payment by Results introduced in the Controlled Establishments and elsewhere during the war—we must all be afraid that, unless the Government helps the industry by a timely and satisfactory declaration of policy, managers will find themselves faced with trouble. After all, it was the Government that got the Trade Unions to agree to lay aside

[1] *Ibid.*

their customs, and it was the Government that guaranteed the restoration, in every case, of the "pre-war practice" of the workshop. It is therefore primarily for the Government to find a way out of the dilemma involved in any inability to fulfil the Government's solemn promise. Employers holding Government contracts have, it is true, individually pledged themselves in writing that all the changes made in their workshops shall be for the period of the war only; and they are liable to be prosecuted in the Munitions Tribunals for any failure to comply with this undertaking. But such litigation is not feared. There will be more than one way of escaping from the purely statutory requirements, which the judges, it is believed, will construe very narrowly.

The greatest difficulty before managers lies, perhaps, in the fact that some of the leading employers in particular industries have made no secret of the fact that they must and will, for the future, be "masters in their own factories," by which they mean that they will adopt what method of remuneration they please, for what kind of labour they please, *and fix for each job for each worker whatever piecework rate they think reasonable.* They do not claim actually to compel (after the expiry of the Munitions

Act) any person to work on these terms, but "he can take it or leave it." They seem to rely on the presence in the Labour Market of the four or five million men disbanded from the army, the three million discharged munition workers, the million extra women who have come into industry, and the two or three hundred thousand partially disabled soldiers seeking employment to eke out their pensions, in order to enable them to fill their factories—at any rate their newly established factories—with docile acceptors of their terms. Any such action would be in flagrant violation of the pledge given by the Government, and embodied in the Munitions Act, that the *status quo ante* should be restored after the war. But such employers declare that any real fulfilment of that pledge means the ruin of their industry, and if its nominal fulfilment in the old factories is legally insisted on, new factories will be started on the new system; whilst even in the old factories there is nothing in the pledge to prevent the new system being brought in twelve months later. It is easy to see that such a decision by the engineering employers will lead to the most serious industrial war.

We can, of course, see the force of the employers' contention that under the old system

of entrusting all kinds of engineering or building work to skilled handicraftsmen at fixed weekly wages—keeping the labourers or the women to strictly mechanical jobs—the labour cost was unnecessarily high, and that without any real advantage to the craftsmen. To use a skilled craftsman for operations which have been proved to be within the capacity of a labourer or a woman after only a few weeks' practice is a waste of industrial capacity. Moreover, it cannot be denied that, at time wages—unless there is an amount of supervision and of "driving" which are both very objectionable—there has been, by a certain proportion of the workmen, a great deal of deliberate "skulking" and waste of time, whilst for the whole shop the pace is needlessly slow.[1] All this has been, in some cases, simply

[1] It must not be altogether forgotten that the workman's "idleness" is sometimes his method of defence against "driving." It has been left for an American author to point out that some managers "have created conditions under which it has been more troublesome and more dangerous, and less profitable for the workman to call attention to" the ill-considered strain or pressure which actually interfered with maximum production, "than to retard the pace by slipping in secret recuperation periods throughout the day." "If a wrongly placed lever has called for more fatigue than the labourer could regularly absorb at the pace which the demonstrator used for a brief test, there has been the opportunity of interposing unnecessary stoppages when the head of the boss was turned. Thus the machine has continued to seem the acme of perfection to its builders, although, for mysterious reasons, the users have never received the expected results" (*The Administration of Industrial Enterprises*, by Edward D. Jones, 1917, p. 224).

scandalous. Public opinion will itself demand a systematic "speeding-up" of production. The difficulty is that, whilst neither the Trade Unions nor Parliament will allow a return to autocracy in the factory, neither public opinion nor the employers will permit a reversion—which the Government has expressly promised—to the pre-war practice. The question is whether there is really any way out other than some plan of joint control, putting in force some device for automatically preventing any future cutting of piecework rates or bonus times; coupled with some form of statutory security for the maintenance of the Standard Rates, and some definite undertaking by the Government that it will—in ways the practicability of which its own officials well recognise—systematically prevent all extensive or long-continued involuntary unemployment.[1]

[1] *The Restoration of Trade Union Conditions*, by Sidney Webb.

VII

THE MANAGEMENT SHOULD HAVE NOTHING TO DO WITH THE RATE OF WAGES

It is, to me, appalling to think of the extent to which the time and thought of the management is still taken up with wages questions, with which, in a properly organised industry, *the employer or the manager ought not to be troubled at all.* Indeed, in the best organised British industries, as we may expect them more and more to be developed, the management of any particular concern will have no more to do with fixing wages or altering piecework prices or bonus times than it has to do with varying the hours determined by the Factory Act, or with changing the rates prescribed under the Trade Boards Act. We may, indeed, lay it down as an axiom of industrial efficiency, that neither the manager nor the employer has any

concern with the rates of pay of the operatives. They ought to have no more to do with the wages that are paid in their own establishment than with those that are paid elsewhere. This may sound to you paradoxical. Yet you will see that it follows logically from the principle of the Standard Rate, which is fixed for the industry as a whole. Nor is it a dream. I may remind you that this is actually what prevails and has long prevailed in one of our largest British industries—perhaps that in which we stand, as regards technical efficiency, highest in the world—I mean cotton spinning and cotton weaving. The owner of a Lancashire cotton mill, or his manager, is not allowed to decide what wages he will pay to any spinner or weaver in his employment. He must pay, as a minimum, whether he likes it or not, according to the Standard List of Prices fixed for his district by the joint decision of the Employers' Association and the Trade Union; just as he must work, as a maximum, the hours prescribed by the Factory Act. If the mill is on a disadvantageous site, or is equipped with old-fashioned machinery, or has bought cotton injudiciously, or has cut selling prices too fine in the eagerness for business, none of these things is admitted as an excuse for paying lower

rates of wages, any more than it is for working more than the Normal Day.[1] Why should the burden of these blunders be put on the work-people? What is more practical is the question, How would it profit such a mill, and how enable it to overcome its disadvantages, for it to attract only the less competent and less regular operatives, and to get from them more unwilling and more indifferent service than the other mills were obtaining—which would be the inevitable consequence of paying less than the Standard

[1] Far from being able to obtain any reduction of wages, the concern which is at the disadvantage of having old-fashioned machinery, or which fails to run its machinery up to the average speed or with normal regularity, or which buys bad raw material, is required, in the cotton industry, *to pay actually higher rates than the Standard List*, as there is no reason why the operatives should suffer from the defects due to the owner's incompetence. After joint investigation by the secretaries of the Employers' Association and the Trade Union, the firm so falling behind the average is required to add 5 or 10 per cent to the Standard List. From the standpoint of national efficiency it is greatly to be desired that this practice should be introduced into other industries. It should be made a part of any development of the Trade Boards Act, or other legal minimum wage systems, where piecework is adopted. It has had a marvellous effect in the Lancashire cotton industry in exerting a perpetual silent pressure towards the elimination of concerns that were badly managed, or which failed to keep their equipment up to the ever-rising standard, or which lagged behind in the adoption of technical improvements. When Trade Unionism is blamed for a policy of opposition to improvements, the really fine achievements of the Lancashire Cotton Operatives in the other direction are ignored.

It may be suggested that, in view of the number of small and backward establishments, the engineering industry would to-day be the better for analogous regulations.

Rate. Competition among cotton mills is, as you know, of the keenest. But because of the inflexible maintenance of the Standard Rate and the Normal Day in all factories alike, competition works always upwards, towards greater efficiency, never downwards, in a lowering of standards. The effect of fencing off the downward way is to constrain all efforts of management and operatives to the upward way. The result is—*significantly enough, we cannot say this of any British industry in which there is no observance of a Standard Rate*—that in productive efficiency the Lancashire cotton mills lead the world. It is hard to resist the inference that there is here a lesson to be learnt by the engineering and other industries, if their able managers will but deign to adapt the experience of other trades to their own peculiar circumstances.

VIII

THE "MANNERS" OF MANAGEMENT

Let us return, however, to the practical business and immediate difficulties of the manager of to-day. I may remind you that, just as it is the business of the company officers of an army, not only to follow the general directions of the general, but also to raise to the highest point the achievements of their men, so it is a supremely important function of the manager, in his execution of the commands of his superiors, to develop to the utmost the productive efficiency of his staff. This is a function of ever-progressing complication, needing more and more development of managerial technique. The future progress of the professional manager, his further evolution out of the mere "ganger," in whom he began, to the scientific industrial administrator, is, indeed, bound up with this progressive development of technique—managerial technique,

not mechanical. The management must keep pace, not only with the growing complication of processes, but also with the changing status of the men. For a long time in the history of the world it seemed as if industrial organisation—as Darwin observed of the Fuegian—could be achieved only with slaves. Right down to half a century ago it could be imagined by thoughtful and enlightened men, as it was once put by an American apologist for negro slavery, that the only permanent solution of the Labour Question in all countries was that Capital should own Labour, whether white or black! Clearly this won't do nowadays. Even more recent is the practice of treating the manual worker very much as we treat a horse; expecting from it only the simplest routine acts, giving it without explanation peremptory orders (which we may be wise enough to utter in kindly tones), measuring the food and warmth and other amenities that we allow it to enjoy solely by what we think will yield in our service the maximum efficiency, using its muscular strength entirely as suits our convenience, ignoring any possibility of its having any desires of its own as to the way it should go, and calling upon it, at any moment and at whatever intervals we may choose, for the exercise, at our command and subject only to the extreme

limits of its own strength, of all the energy of which it is capable. There are, of course, men who are humane and really benevolent towards their horses; and I am glad to think that there have always been employers who have been humane and really benevolent towards their men. But so long as workmen could be treated like horses there was not much opportunity for the development of the higher qualities of management. The foreman who could swear in the dialect of his gang, and knock a man down if he did not promptly obey, was the manager produced by that sort of relationship. We often find it made a matter of complaint that "workmen are not what they were"; and works managers, like domestic housekeepers, sometimes sigh for what Shakespeare called "the constant service of the antique world." And there is this much ground for the complaint that, taking a long view, and ignoring particular episodes, it is fundamentally the workmen as a class who are seeking to change the basic conditions of employment. In the long evolution of industrial organisation, from the basis of chattel slavery to that of feudal serfdom, and from that again to the comparative freedom of employment at wages, it was essentially a change in the status of the manual labourer that was being effected.

During the past hundred years, in the most advanced industrial communities, the status of the wage-earner has been again subtly changing. This is the underlying secular meaning of Trade Unionism, Factory Acts, and the Democratic legislation of the present century. In the present decade, in the most advanced industries, this incipient change of status has become, among the workmen, increasingly a matter of deliberate consciousness and purpose. This growing self-consciousness of purpose, and desire for a genuine improvement in status, is not, in itself, usually made a ground for complaint by the sensible manager: he very often sympathises cordially with it. But it is certainly inconvenient to him that neither the rank and file of the workmen, nor the Trade Union committees, can usually give any definite or logical shape to the specific changes that they desire. The manager naturally looks to Labour to solve its own problems. He himself has the technical side of the industry to manage, if not also, often, the buying of the materials and the selling of the product—to say nothing of looking sharply after the competition of all his rivals. And thus, when new inventions involve changes in processes, when changes in processes require changes in the methods of remuneration, and when changes in technique

permit of changes in the grades of workers employed, the manager feels that he has enough to do with inventing and adopting the requisite innovations, without being called upon also to think out the result of these innovations on the future of this or that set of operatives. Unfortunately, the operatives themselves show no sign of being able to think this out, or to devise methods of effecting the innovation that, without obstructing improvement, would prevent its injuriously affecting the workers' Standard of Life. Thus every alteration in processes, in factory organisation, or in methods of remuneration, is apt to be resented and resisted; not merely from the innate industrial Toryism that is characteristic of the manual worker, but also from an inarticulate intuition that the innovation—in the particular way in which it is sought to be introduced though by no means necessarily in itself—will be detrimental to the narrow interests of the operatives concerned. And the manager frequently seeks in vain for an explanation of what exactly it is that the workmen are objecting to, or what precisely it is that they themselves would propose, as the method of effecting the change that has become requisite.

I have no panacea to offer for Industrial Unrest. The changing status of the wage-earner

necessarily involves a further retirement, very gradually and possibly even slowly, from the position of autocracy in the factory which the employer has inherited; and a further taking into counsel, and even into partnership, of all the wage-earners, so far as concerns the conditions of their working life. We have got to remember that it is human beings like ourselves with whom we are dealing, husbands, fathers, and citizens like ourselves, whose services are rendered, exactly like our own, upon a basis of contract freely entered into on terms of, at any rate, nominal equality. We can, if we like, still take advantage of the wage-earners' poverty, or their ignorance, to bully them, to subject them to caprice or tyranny, or to insult them with foul language; but we do so at our peril. Not only are they apt to revolt—how many of the minor stoppages that still drag down the productivity of the factory or the mine are caused by some insolence of a foreman—but, as the manager of genuine professional efficiency well knows, it is not in this way that any staff can be stimulated to its maximum productivity. In the long run the British workmen of to-day will only do their best if they are treated not as slaves, not as serfs, not as horses, not even as ignorant savages, but as intelligent human beings, having equal

rights to life, liberty, and the pursuit of happiness, and freely and willingly co-operating of their own accord in what they feel to be a common enterprise.[1]

This involves more than manners. A little while ago a great employer suddenly put a notice up in the works stating that, from and after the following Monday, the factory dinner interval would begin at 1 P.M., instead of at noon. The men instantly revolted, and insisted on leaving work at noon as they had been accustomed to do.

[1] An enormous improvement in the manners of management would be effected, with a great advance in that amenity of the workshop which is (though we often forget it) indispensable for the highest efficiency, if it were made an invariable rule—except where, as used to be frequently the case in Lancashire, long personal acquaintance warrants a reciprocal use of the Christian name, as between equals—that every workman were addressed as Mr. Blank, and every workwoman as Miss or Mrs. Blank, instead of by the surname only. The manager should insist on this rule being obeyed by every foreman. A command loses none of its force by being conveyed with courtesy. To treat a man with respect is the only way to secure his self-respect. Our common British habit of varying our manners according to what we assume to be the social status of the person with whom we come in contact is really discourtesy, if not gross insolence. In Japan, where there is only one code of manners, the employer or landlord is as elaborately polite to the coolie labourer or peasant cultivator as these are to him. Herein the Japanese are our superiors in civilisation.

"There is a factory at Glasgow which may serve as an example. When a workman applies at the door, he is shown into a waiting-room furnished like the waiting-room of an ordinary office, and there the foreman comes to see him. He is interviewed alone, addressed as Mr. and treated as a self-respecting member of Society. The way to encourage self-respect in a man is to show him respect" ("The Welfare of Factory Workers," by A. Shadwell, *Edinburgh Review*, October 1916).

The result was a stoppage lasting several days, to the considerable pecuniary loss of the firm concerned. I believe that the comment among competent professional managers was that it served the firm right. Possibly the principals themselves had interfered. At least, one cannot imagine any professional manager, with any knowledge and experience of his profession, making such a blunder. What right has any employer, whether the desired change was good or bad, to spring a peremptory order upon his staff in a matter affecting their own habits, the arrangements of their homes, the comfort of their wives, the health of their children? This was to treat the men as if they had been horses. No wonder there was a stoppage!

The case is worth pondering over. It is, of course, necessary that every large enterprise should be highly organised; and that in order to concentrate the energies of thousands of men to a given end and purpose, there should be unity of command and submission to the common plan. But this does not warrant the treatment of human beings otherwise than with consideration. Even an improvement increasing the men's own comfort will be resented, and rightly resented, unless the men are asked to consider the proposal, and invited to consent to it. And

even in indispensable commands, government does not necessitate autocracy. There was a time when no one knew any other way of governing a nation than by the commands of an absolute monarch. Gradually it was discovered that to leave it to any one man to command as he chose, even if he was crowned and anointed, did not produce the most efficient government. Men can be led faster and further than they can be driven. And so, in the course of the last century or two, kings have found it better to "grant a Constitution" to their subjects, giving them an opportunity to discuss, by their representatives, by what laws they will be ruled and how they will pay their taxes. Many old-fashioned people doubted whether such "Democracy" would not be the ruin of the Kingdom. It was found, on the contrary, that the change resulted, not only in more efficient government than before, but also in stronger government, and in ever so much more obedience. When the people have the "consciousness of consent," they are much more ready to comply with the commands that have in the common interest to be given.

In recent years, not a few far-sighted managers of large and flourishing establishments, in one industry after another, have taken to heart this lesson, and have induced the em-

ployers to "grant a constitution" to their workpeople. That is to say, it has been agreed that the workpeople shall be taken into counsel, through their appointed representatives, with regard to all the arrangements of the factory that affect their working lives; and especially before any change in these arrangements is made. This idea of a constitution for the factory is not altogether a novelty. In the printing trade there has always existed—certainly from the seventeenth century—what is called "the Chapel," a meeting of all the compositors employed by one firm, presided over by the "Father of the Chapel," who is the intermediary between the men and the management.[1] Woe betide the manager who makes any change in the composing room without first communicating it to the Father of the Chapel, and giving him an opportunity of laying it before the Chapel. Many a workshop in other trades has long had its informal "shop club," which elects its foreman or spokesman, notably with regard to the piecework rate for a new job. The Shop Steward in each department of an engineering establishment is a somewhat analogous development.

What is now being introduced is the more

[1] *History of Trade Unionism*, by S. and B. Webb, pp. 65-6; *Industrial Democracy*, by the same, p. 299.

elaborate Workshop Committee. This should be instituted, on the suggestion of the management, in such a way as to ensure the due representation of each department, each kind of work, and each grade and distinct section of operatives. Unless the Workshop Committee is really representative of the feelings and desires of every corner of the works, it will not function to the best advantage. Nor will it work well if it is made use of to thwart the Trade Union, or as a rival to it, or if it is allowed to deal with matters in derogation or in evasion of the district or national agreements between the Employers' Association and the Trade Unions. It may, indeed, be suggested, in order to prevent any such clashing, or any suspicion thereof, both that the functions of the Workshop Committee should be carefully defined from the start, and that in its constitution whatever Trade Unionism exists in the establishment should be definitely recognised. It might be well, for instance, if the suggestion met with the approval of the workmen themselves, that the members of the Trade Unions represented in the establishment should, as such, elect altogether half the members of the Works Committee, in proportion to their several numbers; whilst the remaining half of the members should be elected by the entire

staff, arranged by sections or grades, irrespective of whether or not they are members of any of the Trade Unions. The Workshop Committee should be and should remain a strictly autonomous and distinct body. It should not be presided over by the employer or the manager, nor should the management be represented on it. There must be no proposition that the firm should pay the members of the committee for the time spent upon its work—this would inevitably undermine the authority of the committee, and expose its members to the suspicion of being "employers' men."[1] They must feel that they are the guardians of the workmen's interests. The management—preferably including all the heads of departments or managers of sections—should from time to time meet the Works Committee collectively, whenever either side has any subject on which a conference is desired; and these conferences should be conducted on terms of equality, and in a friendly spirit, in order to discover some way by which the desires of each side can be conceded without injury to each other. Such subjects as the cleanliness, ventilation, lighting, and temperature of the work-place

[1] There need be no objection to the committee meeting on the employer's premises—the management should proffer a suitably furnished and dignified room for this purpose, just as if it were a Directors' meeting.

(upon which maximum efficiency depends much more than managers commonly realise); the hours of beginning and ending work; the intervals for meals; the dates of holidays; the welfare arrangements, including especially the accommodation for meals; the precautions against accidents; the benevolent funds; the workshop rules, and any arrangements about fines, deductions for breakages or inferior work, or charges made for requisites of work, or for hot water, etc., together with any alleged infringements of workshop rules or district agreements as to wages or hours, might all be considered with advantage by such a Workshop Committee, and brought to the notice of the management at a joint conference. Any competent manager will feel it a grave blunder for an innovation of any sort in any of these matters ever to be promulgated by the management until it has been explained to the Workshop Committee, and its opinion thereon invited and considered. Such consultation may seem to take up more time than an autocratic command, and to involve more trouble. In reality, of course, as all experience shows, such a consultation invariably saves the management, in the long run, a great deal of both time and trouble; and often saves the firm, too, no little expense. What is even more important,

such a consultation, which not infrequently results in a genuine improvement of the proposal, secures for it, throughout the whole establishment, the invaluable consciousness of consent, without which the highest efficiency is impossible.

IX

DISCIPLINE

I NOTICE that it is, to say the least, not the most competent managers who are the quickest to raise the objection that "discipline must be maintained." To parody a well-known epigram, I am inclined to believe that, in this imperfect world, every manager gets the discipline that he deserves. Anyhow, one thing is clear, namely, that the manager who relies for discipline on autocratic powers of punishment will achieve only a low degree of industrial efficiency. Punishment of any sort, whether by fine or deduction, by reduction to a lower grade of pay or by temporary suspension from work, inevitably causes in itself a temporary loss of efficiency in the worker punished; and it is always very doubtful how far this is made up by increasing the efficiency of the staff as a whole. It would certainly be an ideal arrange-

ment if a factory could be run without any other punishment than dismissal, on the understanding that every worker who deserved to be kept had better be kept in the best possible temper. Human nature being as it is, there is more to be done by attraction than by pushing —more by emulation and encouragement than by driving and punishment.

But I do not ignore the difficulties of this ideal, nor the demands that it makes on the skill and ingenuity, as well as on the temper and tact, of the manager. Assuming that disciplinary punishments cannot be altogether dispensed with, how should they be managed so as to conduce to the utmost productive efficiency of the establishment—which is, significantly enough, coincident with the utmost happiness and contentment of the operatives concerned?

First of all, is it necessary to warn you that under no circumstances must the firm (or any one connected with it) be allowed to make any pecuniary gain by the punishments. Unless this is made quite clear and indisputable, there will be no conviction of impartiality or justice. If there are fines, it is elementary to say that they must not go to the firm, nor to pay for anything for the operatives that the firm ought to pay for. What I am sorry to say is still

often done is to take for the firm the sums levied on the workers for defective work—it may be for mistakes made, or for omissions, or for bad workmanship; it may be, on the other hand, for mere failures in the process, as when pots break in the firing, or castings are spoilt in the mould. The firm may think it only just that it should get what it can in partial recoupment of the loss of material, etc., and especially of breakages. But the system is a bad one from the standpoint of efficiency. Every deduction creates a grievance. It is not in human nature not to resent the injustice of having to suffer for what is often (and is always believed to be) an unavoidable accident. And when the authority which arbitrarily assesses the deduction itself gains by making it, and by making it heavy, all belief in fairness and impartiality necessarily disappears. The resentment is intense; and the reaction in slackening of effort is incalculably great. From the standpoint of the management the system is a blunder. The firm must gain absolutely nothing from any fines or deductions levied on the operatives. The amount ought to be disposed of annually, in some way chosen by the operatives themselves, with the sanction of the management, so that the individuals who have made the payments

do not exceptionally benefit—it may be by way of subscription to a local hospital, or to the benevolent fund for distress among the operatives not met by other provision; or even for an annual entertainment—it would be far better if it were a week's holiday—for the whole staff.

Every manager who is worth his salt dislikes having to deal with discipline cases, but hardly any manager yet sees his way to free himself from an invidious duty. What ought to exist, in every large establishment, is a Discipline Board, which should have the task of dealing with all failures of conduct, from bad time-keeping up to gross insubordination, including all breaches of discipline. No fines or reductions or other disciplinary punishments should be inflicted except by the Board, or by the manager on a report from the Board. How should the Discipline Board be composed? It may seem a daring suggestion, but I feel sure that its members should be, largely if not entirely, the operatives themselves. Every Briton believes that he has a right to be tried by his peers—that is, by people in much the same circumstances as himself; even the House of Lords insists on this right. There is something particularly invidious in the management being simultaneously accuser, judge, jury, and execu-

tioner. A Discipline Board, wholly elected by the operatives themselves, or one made up partly of departmental officials and partly of representative operatives, would give far more general confidence than the autocratic decision of even the kindest and best-tempered of managers. And the operatives must not be chosen by the management exclusively from among the leading hands, or top grades, but must come from all sections, down to the humblest. It is a good practice to add to the Board, for particular cases, one or two members *of the same grade* as the operative who is being tried. I know one large firm in Scotland where all the cases of bad time-keeping are brought before a committee elected by the whole staff, which hears excuses and inflicts fines, with the very interesting result that the number of cases promptly fell, and the aggregate time lost was enormously decreased. Managers troubled by bad time-keeping might take this hint.

X

FATIGUE AND ACCIDENTS

ONE of the best aspects of that progressive "intellectualising" of management that is going on—we are already a long way away from the mere ganger—is the amount of attention that is being given to what I may call the personal conditions of efficiency. There is a lot to be done in this field, in all sorts of odd ways. I suppose that all professional managers now realise that any working room which seems "stuffy" when you enter it means that none of the workers in it can possibly attain their maximum efficiency. Their fingers are accomplishing fewer operations per day than they might do with even less fatigue. It is of no use telling me that the workers "like it so"; that they shut all windows and close all ventilators, and so on. This only means that the management has not put in brains enough,

or not obtained expert advice on how to keep the room warm and comfortable without becoming "stuffy" and yet without draughts. An electric fan will sometimes make all the difference.

Similar attention by managers is required to all sanitary conditions. It is, of course, by no means enough to say that the Factory Acts, and the requirements of the Local Sanitary Authority may be presumed to be complied with (seeing that the firm has not been summoned in respect of any breach thereof); and that no more is required. It is notorious that, even in Great Britain, the law as to sanitation in factories is very imperfectly enforced, especially as regards establishments or workshops employing men only; and that the official inspection is still hopelessly inadequate. Moreover, the legal requirements constitute a bare minimum; and in many respects they still fall far short of what is necessary for that fullest industrial efficiency at which the competent manager always aims. I fear that we all know factories in which, in this respect or that, the arrangements for ventilation, lighting, cleanliness, heating, and removal of dust and dirt are such as absolutely to preclude a maximum of efficiency.[1] How many managers

[1] "A case in point might be cited that is typical of far too many in this country. The writer, on visiting an important old factory in

bear in mind, when going through their works, that "noise, worry, flickering lights, inefficient lighting or light reflected from bright parts of machinery striking the eyes, faulty heating and ventilation, and all atmosphere of fussiness" all increase fatigue, and thus militate against maximum output? The factory of the future will be as noiseless, as regards all running of machinery, as the most expensive motor-car.

But maximum efficiency is dependent on more than the conditions of physical health. For instance, need the workers whom one sees standing to their work all of them stand? There seem to be some things that could just as well be done sitting. And where the workers sit, are their seats of exactly the height and shape to minimise their fatigue? I have seen a whole row of boys provided with no better seats than

London . . . was made very sad by seeing a poor anæmic-looking fellow working at an emery buff in a cellar-like place, in which the lighting was bad, and in which no provision was made for the withdrawal of the deadly emery and brass dust thrown off from the wheel; indeed, there was practically no circulation of air. Now this was not a case of a grasping, unfeeling employer conducting his business with an utter disregard for the well-being of his employees, as the manager, an intelligent and able man (earning £1500 a year) is thought well of by the workers; it is rather a case of ignorance in such matters, and want of imagination, and it was only necessary to call his attention to the danger to receive a promise that it would be attended to" (*Industrial Fatigue in its Relation to Maximum Output*, by Henry J. Spooner, C.E., 1917, p. 14).

empty packing-cases. Naturally their output suffered. It is clear that seats must be adjusted to the height of individual workers. In the composing room of a printing works there will be an increase of output if each compositor finds the "case" adjusted to his own standing height.[1] These are matters that every manager ought to consider.

The workers will practically never ask to be made more comfortable at their work. They are even apt to resent any consideration on such points, partly from a subtle sense of personal dignity, partly because they do not like to be dealt with as if they were machines, which work better when more precisely set and more carefully lubricated. It is true that we must not look upon the worker, man or woman, merely as a machine; but we ought at least to see to it that he or she is treated as well as a machine, in the sense of being provided with all the conditions necessary, on the one hand for personal

[1] We learn from the Report of the Chief Inspector of Factories for 1914 that the women employed at fish-curing on the West Coast of Scotland have to gut the fish as they lie in the "farlanes" or troughs, which are usually flat on the ground—thus having continuously to bend their backs in a terribly straining manner, causing actual pain to them when they stand up. It had apparently not occurred to any manager that their daily output could undoubtedly be increased, and their muscular efforts lessened, by adopting a more convenient position for the "farlanes," so as to enable the women to sit at their work.

comfort, and on the other for smoothest running and greatest output.

The periods of labour, which are largely conventional, dating from a time when industry was carried on by very different processes, are at present demonstrably not those which yield the greatest efficiency. A spell of five hours without a break, and without some stimulating food, is certainly too long for women and girls, and probably also for men. Where the experiment has been tried, of serving hot cocoa or milk, and insisting on a ten minutes' pause, there has not only been an improvement in health, but production has also been increased.

I wonder when British managers will discover that the "before breakfast" period of work is the least profitable of all, the output per operative during this hour or hour-and-a-half falling habitually to no more than 80 or 90 per cent of the output in the middle periods of the day —a shortage due, Professor Kent informs us, to a "loss of the special co-ordination" gained by practice.[1]

This consideration has an important bearing on the length of the working day, the very

[1] *First and Second Reports to the Home Office on an Investigation of Industrial Fatigue by Physiological Methods*, by A. F. Stanley Kent (Cd. 8056 and Cd. 8335, 1917).

doubtful advantage of extending it by overtime, and the proved disadvantage of losing a Sunday rest. After ages will wonder at the stupidity of the British War Office, when the urgent pressure came for additional war material in 1914–15, in desiring, and at the weakness of the employers in allowing, the lengthening of the working day and the adoption of continuous seven-day shifts, under the delusion that this was the way to increase the total output.[1] I am glad to think that "in the main it was not the works' managers who were responsible for the large amount of overtime and Sunday labour" in [1915–17] . . . "in fact they know that in a certain proportion of cases a substantial increase in the actual total output can be secured by a reduction in the working hours."[2] But that reduction has not yet been made. As a mere question of maximum

[1] "During the early part of the war, owing to the great pressure of work, our industrial establishment, employing some 15,000 hands, never shut down except for a few days; that is, excepting one or two holidays, we ran clean through for eighteen months without a stop from Monday morning until Sunday night; *but it did not pay.* For the last few months, and with the permission of the Ministry of Munitions, we have knocked off Sunday work, the result being that our output has been equally as great" (Sir Robert Hadfield's Preface to *Industrial Fatigue in its Relation to Maximum Output*, by Henry J. Spooner, 1917).

[2] *Industrial Fatigue in its Relation to Maximum Output*, by Henry J. Spooner, 1917, p. 17.

industrial efficiency, we ought certainly to adopt, as the normal working period in all manufacturing industry, for men as for women, the Eight Hours' Day, with a single break in the middle, which several dozen of the most successful establishments in different industries have found greatly to lessen the time lost by sickness and actually to increase their aggregate output for the year. It is very suggestive to find that nearly every shortening of the working week, even down to 42 hours, has been accompanied after a short time, not by a diminution but by an actual increase of output. Lord Leverhulme is actually beginning to talk of a Six Hours' Day at Port Sunlight—which may be the way to get the workmen to consent to two shifts. There is room for careful experiment here, yet the impulse of every employer, as I am afraid it is that of most managers, is to attempt to meet any demand for increased output by lengthening the working hours, piling up overtime, even putting on Sunday shifts.

And what are we going to do about the quite appalling toll of accidents which goes on undiminished, and even increases. I speak here quite as much of what we call minor accidents, which cause only pain, as of those which cause maiming or death. But it is not creditable to

us as a nation—it is certainly not creditable to managers as a class—that the industrial casualties of the United Kingdom in peace—casualties serious enough to involve absence from work, and liability for compensation—should, year by year, actually exceed in number the casualties of all our armies and navies in a great war. It is a short-sighted view—it may be that of the counting-house—that it costs less to pay compensation for accidents than to prevent them. You may be quite sure that the workmen will not long allow us thus to "coin their blood for drachmas." What is perhaps more relevant to my present theme is the fact—which I do not find is always remembered—that every accident means, directly and indirectly, a quite perceptible diminution of productivity, not merely in respect of the death or injury of the worker affected, nor merely in the interruption of the work thereby caused, but also in the psychological effect of the untoward event on the rest of the staff. The laying of the pit idle for a day, when there has been a serious colliery accident, brings this loss of efficiency before us in a tangible form. The manager who lets accidents continue to occur when they can by any means be prevented is failing in his job. It is not very

nice to reflect that, in several industries, we can see that, year in and year out, the accidents happen to a disproportionate extent at particular hours in the day, and on particular days in the week. What is the cause of this, and why is it not stopped? It looks as if a more general study of Fatigue would yield a return not only in happiness but also in increased efficiency. It is demonstrable, too, that accidents occur with greater frequency on dark days than on light, merely "because of insufficient artificial light. Improper lighting conditions result in much spoiled work . . . and an enormous number of casualties."[1] These casualties ought to lie on the conscience of the manager!

[1] *Practical Safety Methods and Devices*, by George Alvin Cowee, 1916, p. 381.

XI

"SCIENTIFIC MANAGEMENT" AND "WELFARE WORK"

We often hear, nowadays, of what is called "Scientific Management," by which some American "Efficiency Engineers" claim to work marvels. The matter is well worth study by every British professional manager—he cannot fail to pick up hints that will be useful to him. But I am afraid that a lot of rubbish has been talked under cover of the phrase "Scientific Management." I am told by those who have visited a great many American works in different industries that some of those that profess the most, in the way of "Scientific Management," have really achieved nothing at all superior to what we have done quietly in our own way over here; and that some of those which appear to have achieved more in the way of output find that they do so at a disproportionate increase of standing charges.

You see, it is quite possible for an "Efficiency Engineer," in getting rid of some existing drag on production, to introduce a new and expensive form of waste!

I will make here only three comments on Scientific Management.[1]

[1] "Fundamentally, Scientific Management consists (1) of an improved system of piecework remuneration, with rates 'scientifically' fixed upon a minute and prolonged 'time-study' of each operation and 'therefore' [it is alleged] incapable of alteration to the detriment of the workmen whom it may have tempted to enlarged output; (2) of the utmost possible standardisation of tools, equipment, operations, and products, so as to permit of maximum production; (3) of elaborate 'motion study,' so as to discover how exactly the workman should use his muscular force, with what intervals, and for what length of time, in order to produce the greatest result; (4) of 'routing and scheduling,' and directing by 'instruction cards' not only every movement of material, tools, components, and products within the factory walls, but also every movement of every workman to the same end; and (5) of the adoption of 'functional foremanship,' replacing the old-time single foreman by half-a-dozen specialised directors and instructors—the 'gang boss,' the 'speed boss,' the 'repair boss,' the 'route clerk,' the 'instruction card clerk,' the 'time and cost clerk,' the 'shop disciplinarian,' and the 'general inspector'" (*The New Statesman*, June 17, 1916). It is not, of course, any solution of the problem of what piecework rates to fix, or what 'bonus times' to allow for any particular jobs; nor yet of how the Standard Rate should be arrived at.

Those who wish to study 'Scientific Management' should read first the works of its enthusiastic inventor, F. W. Taylor (*Principles of Scientific Management* and *Shop Management*); and should then study Hoxie's careful analysis of the results in American practice (*Scientific Management and Labour*, 1915). After that they can study the various books in which Harrington Emerson, H. L. Gantt, F. B. Gilbreth, and other American 'Efficiency Engineers' have elaborated their various 'systems.' A good account of the history of the movement is afforded by *Scientific Management: a History and a Criticism*, by Horace B. Drury (Columbia University Series, 1915).

Its best feature lies in its psychological influence on the management itself in its insistence on the perfect organisation of the factory, use of the best machinery, consideration of the conditions of the greatest efficiency for each worker, prevention of any loss of time, and prompt application of labour-saving appliances. All this means only more intelligence and more imagination in our managers and employers, together with production on the most economical scale, with larger factories and a great effort towards standardisation, and the deliberate regularising of demand. It emphasises the importance of (*a*) discovering, and (*b*) applying universally the best process and the best way of doing each job, instead of letting each little establishment, and even each workman, blunder along on "rule of thumb." It may teach our managers and employers a great deal as to the economy of (*a*) short and regular hours; (*b*) properly arranged intervals for rest and refreshment; (*c*) ascertaining precisely the most suitable tools for each job and each man (much more can be shovelled if the spade is exactly the right shape for the material, and the right length for the man who wields it). All these are lessons for the manager. There is an almost endless field for improvement here. There are factories which still employ

men in dragging things about, which ought to be moving by mechanical traction. The use of tools specially designed and adapted for particular jobs is still exceptional.

And lest I should be supposed to be imagining these shortcomings in British engineering industry, let me fortify my criticism by that of an indisputable authority, the President of the Institution of Mechanical Engineers (Mr. Michael Longridge), speaking no longer ago than April 1917. "Except in a few cases," he declared, "workshop organisation here has not received the attention given it in America or Germany. There are still shops without definite planning of the progress of the work, without adequate equipment of jigs and gauges, and without standard shapes of tools or a tool-room; where men drift about in search of tools or tackle, or wait in idleness for drawings and materials; where machinery is obsolete and light so bad that good work cannot be done if the machinery were up to date. Such shops must go. They cannot compete in price or quality of work with those in which what is known as 'Scientific Management,' or anything approaching it, prevails; where the progress of every job is planned to the last detail before it is sent into the works; where machinery is so arranged that each piece

passes through the whole series of operations to be performed on its pre-determined order and without pause, and is immediately succeeded by another piece to undergo the same cycle of operations; where labourers and tackle for fixing the work are ready the moment they are wanted; where drawings, gauges, and tools properly ground to standard shapes come with the work; where cleanliness, light, and comfort reign, and where endeavour is made to get the workman to regard his task more as a problem to be solved than a task to be got through."[1]

Would you like to see how this factory inefficiency strikes the intelligent workman? I don't think we quite realise how much genuine contempt the thinking workmen sometimes have for the way we do our business! They are very often far from admiring the "efficiency" with which they are "managed." I commend to you a very interesting book, incidentally describing the organisation of what (if this description is at all accurate) I would fain hope to be the worst of all the great engineering establishments of the United Kingdom. That book, *Life in a Railway Factory*, by Alfred Williams, gives an appalling description of the

[1] Presidential Address to the Institution of Mechanical Engineers, April 20, 1917.

waste and disorganisation in the great railway engineering works at Swindon. Ask yourself whether this or that defect cited by Mr. Longridge, or stigmatised by Mr. Williams, does not exist to-day—doubtless in a lesser degree—in the works with which you are concerned.

My second comment is that the "study of the job"—the accurate investigation of all the actual processes—is all to the good (though it will task the brains of the manager to the utmost!), in so far as it has for its motive and object either the discovery of how waste of time or waste of effort can be prevented, or of how to arrive at a more precise calculation of bonus times or piecework prices. But if it is used either as an instrument of making the operative work harder or more incessantly, or for an insidious lowering of rates or earnings, it will lead to revolt, and produce such a spread of "ca' canny," and such a sullen resistance, as will make the factory lose in efficiency, at a blow, more than it can possibly gain by any technical improvement. What shall it profit a manager to discover how a workman can be made to increase his output, if he thereby "puts the back up" of the great mass of workmen, and of the Trade Union in which they have faith? Remember always that the workmen are not horses. If once they believe you are playing

tricks with them, you are—from the standpoint of maximising productive efficiency—undone.

My last comment is that you must not dream of taking a single step in the direction of Scientific Management until it has been very elaborately explained to, and discussed by, not only the particular men with whom you are going to experiment, but also by the whole workshop. It will, if you handle it with any competence, be a matter of intense interest to them. You must talk to them both publicly and privately, with magic-lantern slides and experimental demonstrations, answering endless questions, and patiently meeting what seem to you frivolous objections. The Workshop Committee or the Shop Stewards will naturally be the first people to be consulted. Remember, it is the men's working lives (not your own life) that you are proposing to alter, and their craft (not yours) that you may seem to be going to destroy. You will be making a ruinous blunder, fatal to the maximum efficiency of the works, if you content yourself with bribing, by high rates, bonuses, or rewards, just the few individual men whom you propose to put on the new system, whilst leaving the opinion of the rest of the staff sullenly adverse. The others will not be appeased merely by the fact that a few selected men are making

"good money"! And you must, of course, make it clear in some way, to your own men as well as to the Trade Union concerned, that what you are proposing to introduce will not merely pay the first lot of selected workmen, and not merely the present generation, but also will have a good influence on the prospects of the whole staff, and will not have any adverse effect on the Standard Rate, now or hereafter. Unless you can demonstrate this—unless you in some way automatically protect the piecework rates from being "cut" *at some future time*—possibly by some future manager—you will be met (and in the national interest you ought to be met) with unrelenting opposition; and, if you impose the change by force or by individual bribery, you will inevitably encounter the reprisals of "ca' canny."

One particular form of "Scientific Management," as we have seen, is to take care that every operative is in a position to render, continuously, his or her services in the most efficient manner. To do this involves perfect physical health, an untroubled mind, and a cheerful disposition. The wise works manager, in the United States even earlier and more extensively than in the United Kingdom, has necessarily realised that the establishment was as much interested in the health and well-being

of its operatives as they were themselves. The result is that, in the course of the last few years a new duty has been placed upon the management, under the name of "Welfare Work," namely, the supervision of the health and comfort of the operatives, inside the factory and outside; and the organisation and provision of all sorts of things for their convenience. This is partly philanthropy, or rather common humanity; and partly—we had better be candid about it—a way of increasing industrial efficiency. Those benevolent and far-sighted firms, such as the Cadburys, Rowntrees, Levers, and others less in the public eye, who have, in Great Britain, pioneered in Welfare Work of different kinds, have found their expenditure well repaid, not merely in their satisfaction at the benefit to their operatives, but also, even unexpectedly, in the increased productiveness of their establishments.

In the United States, where "Welfare Work" has been much more widely adopted than in the United Kingdom, and where it has been pushed to a far greater height, in literally hundreds of establishments, great and small, in every conceivable industry, the results achieved have been even more remarkable. Every works manager ought to realise that it has been

demonstrated beyond dispute, that in a factory where the workers are properly looked after, even at some considerable expense, there is less time lost by ill-health; the average output is less pulled down by weakness and fatigue; the "labour turnover" is reduced to a minimum because nobody wants to leave; the quality of the workers steadily rises as the increased power of selection among the crowd of candidates begins to tell; and, more important than all, those "imponderables" that we call *morale*, character, *esprit de corps* or what not, bring influences to bear on productivity that could not possibly have been predicted.

These results of Welfare Work have been, so far, mainly demonstrated in the United Kingdom among women and girls. They are now being experienced in those establishments in which similar arrangements have been made for boys. It is by no means easy to organise anything analogous with regard to men; though the very popular canteen arrangements made during the war point the way to further developments. There are already (July 1917) more than 600 salaried Welfare Supervisors installed in British manufacturing establishments. The Home Office, by virtue of a clause

silently smuggled through Parliament in 1916, has made Welfare Work part of its requirements under the Factory Acts, primarily for women and boys; and no professional manager can afford to ignore what will presently be an indispensable branch of works administration.

I do not propose to discuss here the various branches of Welfare Work, nor the particular devices that have been found successful. The books on the subject that will now abound must be read and compared.[1] What it concerns managers to bear in mind is that "Welfare Work" is already bitterly resented among certain strata of the operatives; and that it all depends on the spirit and the purpose for which it is carried out whether it may not presently develop

[1] See *Welfare Work*, by E. Dorothea Proud (1915); *Experiments in Industrial Organisation*, by Edward Cadbury (1912); *Welfare Study, what it is*, by Cecil Walton (Maclure and Macdonald, Glasgow, 1917, 24 pp.); together with the score of Reports published during 1915–17 by the Health of Munition Workers Committee. Instructive accounts of the American experience will be found in such works as *Social Engineering*, by W. H. Tolman, and *Safety*, by W. H. Tolman and L. B. Kendall; *Citizens in Industry*, by C. R. Henderson; "Employers' Welfare Institutions," by George A. Stevens and L. W. Hatch, in the 1903 *Report of the Commissioner of Labor for New York State*; "Employers' Welfare Work," by Elizabeth L. Otey, in *Bulletin No.* 123 *of the U.S. Bureau of Labor*, 1913; *The Henry Ford Book: Help the other Fellow*, by Henry Ford, 1915; chapter xv. of *The Administration of Industrial Enterprises*, by Edward D. Jones, 1917; *New Ideals in Business: an Account of their Practice and their Effects upon Men and Profits*, by Ira D. Tarbell.

into a new cause of industrial friction, which might easily become so detrimental to maximum efficiency as to outweigh all the gain to be made by the improvement in the workers' health.

I do not know how I can better make you realise the depth and the heat of the feeling that is being aroused than by quoting at length the Report, which you are not likely otherwise to see, of a recent meeting of women factory operatives of various localities and different industries. It behoves managers to realise what it is that is resented.

WOMEN DISCUSS "WELFARE"

At a Conference of representative women, held on Saturday, May 5, 1917, some very strong statements were made with regard to Welfare Work, and the supervision of women in munition works.

Miss Mary MacArthur declared "that there is no word in the English language more hated amongst the women workers of to-day than that of 'Welfare.'" The chief objection they have to recent developments is that they find it difficult to understand the position of the welfare worker who tells them she is looking after their interests, but yet they know that she is paid by the employer. Necessarily all seek real welfare for themselves, but the workers do not feel that this is secured by the interference of the employers' representatives. It is for the welfare of human beings that they should be

independent and be able to combine with their fellows, but most welfare workers discourage organisation, and only try to increase output. Besides, welfare workers often interfere outside factory hours, and such interference with home life, leisure, and liberty undermines the workers' independence and self-reliance, and tends to make them forget that it is more important to be a good citizen than a good machinist. The workers have a right to the best conditions obtainable. Trade Unions are necessary to claim and maintain these conditions, and, having secured them and acting in combination, the workers can look after much for themselves which the welfare workers undertake to do.

It was stated that girls object to even a good welfare supervisor, because they think her goodness will not last, and they wonder what the game is. Instances of complaints made to welfare supervisors were given, many being of a most trivial nature, and all being individual complaints for the benefit of the individual, no attempt being made to improve the general well-being, nor was there any encouragement given to mutual action. A good supervisor tries to do everything for the girls, and they do nothing for themselves or each other, and she discourages organisation. The bad supervisor disciplines and is always interfering. She interferes if the girls are out at night (especially if they are with a man in khaki), she interferes if boots are dirty, or blouses low at the neck, or stockings thin. But she hardly interferes as thoroughly as it is done in America, where the welfare supervisors fill up charts with particulars about the parents, religion, taste in books, etc., etc. In America this scheme is part of scientific management, where the essence of scientific management is centralisation

of authority and the subordination of the workers, and the employers take the view that when the workers become independent the welfare supervisor gives them back their authority. It is this unwarrantable interference on the part of the employers or their representatives that is objected to, not to what welfare workers do in looking after food, rest rooms, sanitation, etc. In New York the welfare supervisor has been long hated because she is paid by the employer, and she cannot serve two masters; and the position is becoming the same here. Really good welfare workers can rarely continue in their position. An enthusiastic welfare worker tried to get young girls off heavy machines, and protested against having the rates cut, but her job had to be given up, because supervisors are not expected to use their influence in this direction. A manager or superintendent is accepted by the girls as being for the boss, and being so recognised all is fair and square; but if a supervisor is said to be for the good of the girls, they are at once suspicious of her. Instances were given of places in America and in this country where there are no welfare supervisors, but good conditions are secured by Committees of Trade Union women looking after the shops, and if anything is wrong they see that it is put right. These workers are left free, so there is no more need to supervise the workers than for the workers to supervise the employers; but where welfare work exists some girls have said, "We have to fight welfare for all we are worth."

Another speaker emphasised the need for women to supervise the work of women. Frequently the whole control is in the hands of men, and it is most important to have women to refer to about girls' health, etc.; but

this need not mean welfare supervisors, but forewomen or women superintendents, as they would understand the workers and the work of the workshop, and would be more satisfactory. It was at one time suggested that a supervisor should qualify by working in a factory; but in appointing supervisors social influence is the most important factor, university degrees are also often demanded, and the result is that many supervisors understand neither the work nor the workers.

It is scandalous that women without practical experience should have such positions (some think it is enough to have had experience managing domestic servants), and in this way the whole system of welfare supervision is discredited. If run by the State it might be satisfactory, if on the same lines as factory inspections; but probably it would be best managed by Trade Unions. There was plenty of evidence that the girls think it is really a dodge to get more out of them, and there is no doubt that welfare pays. For instance, an employer thought of increasing wages to retain the services of his employés, but instead gave them cocoa and a bun in the middle of the morning, and the output was greatly increased at a trifling expense.

It is all right to try and get a big output on the employers' side, but there is no need for hypocrisy and interference. The workers are right in trying to get all possible chances for human interest and a full life, and perhaps there is no need for the mistrust of employers—mistrust which prevents any good relations between welfare supervisors and workwomen. It was suggested that at the present time there is a place for welfare workers, but the best welfare supervisor should try and make herself unnecessary. At present girls are frequently hardly ready to take charge of their own interests,

and need help and training to do so, though instances were given where girls are promoted from the bench and make most satisfactory forewomen. From this discussion and that on the other resolutions (factory inspection, housing of the workers, and the health of the younger employés), it was evident that many working women and girls are keen on managing their own concerns. The right Trade Union instinct is working, and they will soon be in line with the most advanced men, if not able to give them a bit of a lead.

The following Resolution was put and carried :—

"That this Committee declares its conviction that the establishment of a system of welfare workers in the service of employers can never materially increase the wellbeing of the workers as a whole; and that while it advocates the employment of women to supervise the work of women, it does not consider that such supervisors should be regarded as having any other functions than those of management.

"It protests against any extension of control over the private lives of the workers, and asserts that in every factory the welfare, social and physical, of the workers is best looked after by the workers themselves.

"With this object in view this Conference urges that in every workshop and factory there should be a Trades Union Committee, not only to look after wages and similar conditions, but to interest itself in all the concerns of the workers under their direction and to make representations thereupon, when necessary, to the management."[1]

[1] *Journal of the Confederation of Iron and Steel Workers*, June 1917. Criticism to a similar effect will be found in *The Trade Union Worker* for the same month.

Now, analysing these complaints, we see that the Welfare Supervisor, being the salaried officer of the employer, has to overcome the very natural suspicion that (*a*) he or she will discourage Trade Union membership; (*b*) interfere with the freedom of the operatives' private lives; (*c*) diminish their sense of independence and self-reliance; (*d*) act as a spy and an informer for the employer; and (*e*) help him to concede "welfare," not in addition to but instead of an increase of wages. It is perhaps not uncharitable to suggest that the greater part of this series of grievances centres round Trade Unionism. Like a Workshop Committee, Welfare Work will fail, and do more harm than good, if it is made use of as an alternative to Trade Unionism; or as a means of preventing or discouraging in the factory Trade Union membership. But the Welfare Supervisor who has any such idea, and the manager or employer who has any such purpose, may as well give up any attempt either at successful Welfare Work or at maximising industrial efficiency. The advantages of Trade Unionism for women are so manifest and so undoubted; the gain in their productive efficiency brought about by successful Trade Union organisation is so marked; and the drawbacks of the feeble ineffectiveness and lack

of gumption that usually characterise the unorganised women workers have been so often commented on, that the first thing that any competent manager aiming at the highest industrial efficiency should do with a staff of female operatives is undoubtedly to persuade them to join a Trade Union. The Welfare Supervisor is, of course, not warranted in actually pressing them to join a Trade Union; but she should unquestionably take every opportunity of pointing out to them the advantages —alike to them and to the firm—of their belonging to a Trade Union. Why, the very argument for increased production is that the enlarged profits that it will yield will be accompanied by increased wages, which are typified to the women workers in Trade Unionism. Unless the manager and the Welfare Supervisor make the women realise that their increased efficiency is to benefit, not the firm alone, but also the operatives, and that in higher wages as well as in greater amenity of life, the very object of the Welfare Work will be thwarted from the start. The Welfare Supervisor must undoubtedly give it out in all possible ways that, with the authority of the management, she is there to encourage and foster Trade Union membership among the staff, as the first step to any increase

in its productive efficiency. For the same reason as in the case of the men, the women should be urged to have their own independent Workshop Committee (on which the Welfare Supervisor had better not sit), which should take its part in the administration of the workers' common concerns; and should, of course, be consulted by the Welfare Supervisor before any innovation is introduced in the workshop arrangements. A tactful Welfare Supervisor who avowedly encourages Trade Union membership, does not presume or pretend herself to represent the workers, and makes all possible use of the elected Workshop Committee, will find the prejudices against Welfare Work rapidly disappear. Such a lady will realise that the women rightly regard her as the employers' representative; and she will know how to avoid anything in the way of undue interference with the women's private lives; or the imposition upon them of any arbitrary standard of conduct, dress, or manners. It is in the personal influence gained over each woman individually that good is done in any of these matters.

The Welfare Supervisor may, however, find it not quite easy in some establishments to keep the balance even between her duty to her employer, who is apt to be primarily con-

cerned with increasing profits, and her natural sympathy with the women workers' claims to better remuneration. The Welfare Supervisor must look after the interests of the employer, or he will not keep her; and she must genuinely promote the interests of the women whose welfare she is there to secure, or they will not be influenced by her. Is this an insoluble dilemma? Many employers, on the one hand, and nearly all wage-earners, on the other, would say that it was. I do not think so. I am perhaps simple enough to believe what we are so often assured—what, indeed, is the final justification alike of the Trade Union Standard Rate and of the employers' Scientific Management—that the increase in industrial efficiency which it is possible to obtain by Welfare Work and other improvements in factory organisation, will genuinely pay both employers and employed. I believe, further, as I have already explained to you in connection with Payment by Results, that only on condition of making this increase in efficiency directly pay the wage-earners can the employer, in the long run, make it pay himself. In this matter of Welfare Work, at any rate, the interests of both parties are identical; both stand to gain by an improvement in the workers' health and comfort; and neither party can

achieve the end without the co-operation of the other. The Welfare Supervisor ought to decline to have any part in any new arrangement which does not promote the better health or greater comfort of the operatives. She is appointed in order to increase the productive efficiency of the establishment and therefore its profits; but only in ways which increase the health and well-being of the operatives. Other devices do not fall within her sphere. If the management tries to use the Welfare Supervisor for these other profit-making devices—for changes which do not increase the health and well-being of the operatives—this will prove as suicidal as cutting the rates. The Welfare Supervisor who lends herself to such tactics will find that she thereby destroys her power of effecting those other profitable improvements for which she was engaged.

These difficulties and complications of Welfare Work make it desirable that no Welfare Supervisor should be appointed because of her relationship to a member of the firm, or because she has a "commanding manner and is a good disciplinarian," or because she has "taken a great interest in philanthropic work." The post demands a special training, not only in the duties of a Welfare Supervisor, but also in what

are now called "Social Studies," preparatory to "Social Work" of various kinds. At least a year of such training should be insisted on, together with some practical experience of factory life and of the habits and feelings of the manual workers. Such courses of training, including opportunities for gaining the practical experience required, are now provided by the University of London (Ratan Tata Department of Social Science at the London School of Economics, Clare Market, Kingsway, W.C.), and by some of the provincial universities. An untrained and inexperienced Welfare Supervisor may easily be worse than none at all. She may, without realising it, easily upset the minds and tempers of the operative staff to such an extent as to cause a positive drop in the output.

XII

ON "CHOOSING EQUALITY"

AND now, although I have very far from covered the whole ground, I must bring this sermon to an end. I do not pretend that, even when the manager has done his utmost, including all that I have here suggested and a great deal more, he will have been able to remove all the causes of industrial inefficiency, or that he can pride himself on achieving the maximum output. It is human nature that he is dealing with, and, as we are often told, it is human nature that is the trouble. Only I don't think the fundamental trouble with human nature is where it is often placed. We shall never get the maximum production out of our industrial establishments so long as these are run, and are known by the operatives to be run—not for the benefit of the persons who do the work, not even for the benefit of the community as a

whole—but for the benefit of a class of functionless landlords and shareholders to whom we have, by the laws that we have made and by the social system that we maintain, chosen to give the privilege of levying a tribute on our labour equal in the aggregate, in the United Kingdom and in the United States, to something like one-third of the produce.[1] This the community can stop whenever it chooses to do so. Political

[1] Specious calculations are sometimes made to show that the amount of what is technically known as "Surplus Value," or, as we commonly say in the United Kingdom or the United States, the amount drawn as rent and interest by the functionless landowners and shareholders, is nothing like so much as one-third of the whole product of industry. Thus, it is sometimes sought to be proved that the whole net profit of the coal-mining industry, or the engineering industry, or the cotton industry, or of some particular concern, would not suffice to increase the wages of all the workmen employed therein by more than one or two shillings per week. These calculations are fallacious, and the wage-earners know it. The manager would do well not to argue with his workmen on this basis. It may well be that, in any particular concern or industry, after deducting rents and royalties, debenture and mortgage interest, and all the salaries allowed to the managing partners or directors for their work, the net profits divided as dividends among the ordinary shareholders, in any particular year, would not, even if wholly devoted to an increase of wages, effect nearly so great an augmentation as might at first sight be expected. But what the workmen as a whole are concerned with—like the political economist—is the entire share drawn by the owners of land and capital as such, irrespective of any contemporary participation by them in industry; and not the terms on which any particular concern may have hired its land or obtained its capital. It was not the directors and managers, but "the possessors of the instruments of industry" that John Stuart Mill, more than half a century ago, reproached for "the enormous share" that we choose to enable them to abstract from the product of our labour by hand or brain.

economy teaches us that it can be done, and how it can be done. "Profiteering"—held up to obloquy by Prime Ministers, and condemned by enlightened public opinion as a social crime, and aptly defined as "taking out of an industrial enterprise anything beyond a fair remuneration for personal services actually rendered"—is now seen by the economists to be, because of the bad psychological reactions that it creates, in the long run, incompatible with maximum production —paradoxically enough, even with an aggregate maximum of profit! But I must go further. It is not only the tribute that idleness is thus enabled to levy upon industry which, in the last analysis, now hampers so intolerably our national production. We shall not manage—human nature being as it is—to get the maximum production possible, until we are wise enough, and well-mannered enough, in the words of Menander, to "Choose Equality." We must somehow procure—and this is a more difficult process than merely expropriating the function-less landlords and shareholders—a much more equal distribution of the produce among those who do co-operate in its creation by hand or by brain. So long as we persist in keeping three-fifths of the producers no better than horses (and many of them far worse than horses)

whilst ten or twenty thousand "captains of industry" insist on claiming for their really indispensable services, out of the common product, each of them perhaps fifty or a hundred times as much as the craftsman's standard rate, there will be (as of course there ought to be) industrial unrest. What Society has to secure for each man, whether manager or manual worker, is an income sufficient to allow of the subsistence of himself under conditions of maximum personal efficiency in respect of the powers he possesses and of the function assigned to him, together with the means of maintaining his wife and of bringing up his children in such a way that they can make the best of their own powers; and, further, full security for the future. Beyond these quite liberal terms, it is difficult to make out any claim on grounds of the maximum social efficiency. I am not now suggesting that we could or should compel managers to accept the present wages of the craftsman; nor do I wish to threaten all inventors with getting no greater a reward than Faraday received. Faraday voluntarily "chose equality." It is, on the whole, only by their own deliberate choice that the exceptionally able men will be rewarded otherwise than they are now; and it will be

interesting to see how many of them will, in this matter, prefer voluntarily to imitate Faraday; and to seek their reward in a life of fascinating interest in the exercise of faculty, and in the consciousness of service rendered, rather than in accumulating riches for themselves and their descendants. But these speculations take us too far afield. I end as I began, by emphasising the fact that, under any social order, from now to Utopia, management is indispensable and all-enduring.

INDEX

Accidents, 122-130
Actuaries, Institute of, 7
Address, method of, 109
Agreements with Trade Unions, 37-39; as to Scientific Management, 137-8; as to hours of labour, 109-110; as to Welfare Work, 146-9; as to double shifts, 128; as to Workshop Committee, 113-114
American practice in "hiring and firing," 23, 33; in inquiries into character, 23; in dismissals, 33; in rate-cutting, 68, 70, 75; in Scientific Management, 131-2; in workshop organisation, 134; in Welfare Work, 138-152; as to Surplus Value, 154
Appointments, 20-25; patronage in, 23-25; inquiry into character for, 22-23; of Welfare Supervisors, 145, 151
Architects, Royal Institute of British, 7
Atkinson, Henry, 59, 79, 84, 86
Autocracy discredited, 111

Barnes, Rt. Hon. G. N., 62
Barr and Stroud System, 58, 62
Beveridge, W. H., 22
Bonus systems. See *Payment by Results*
Boot and shoe manufacture, the, 57, 82, 87
Bootmakers, the hand, 52
Brassworkers, 82, 89
Breakfast, work before, 126
Bruce, A. B., 69
Building trades, the, 58, 87, 93

"Ca' canny," 18, 19, 76-79, 85, 86, 90, 138
Cadbury Brothers, Limited, 91, 139
Cadbury, Edward, 91, 141
Casual labour, 20-21
"Chapel," the, 82, 112
Checkweighman, the, 66, 81
"Choosing Equality," On, 153-7
Coalmining, 66, 81, 88-89, 129
Collective Agreements, 39, 41-44, 100-102
Collective Bargaining, 35-39, 41-44, 62, 63, 77, 80, 87, 91, 94, 100-102
Colliery Managers, Association of, 3
Comfort in work, 122-130
"Constitution" for the Factory, a, 111-116
Cost of labour distinguished from rate of wages, 53
Cost of production, reducing the, 15-20

Cotton industry, the, 42, 65, 82, 87, 88, 93, 100-102
Cowee, G. A., 130

Davies, W. J., 82, 89
Deductions, 117-121
Denny, W., 69, 71
Diemer, H., 2
Discipline, 28-33, 117-121
Discipline Board, a, 120-121
Dismissals, 27-33; by foremen, 28-33; appeal against, 30-32; notice of, 32-33; diminished by Welfare Work, 140
Drury, Horace B., 132
Duncan, J. C., 2

Efficiency, 9-14, 138, 155
"Efficiency Engineer," the, 59, 60, 61, 86, 132
Emerson, Harrington, 59, 132
Employment Department, 20
Employment Managers, 2
Engineer, The, 59
Engineering, the industry of, 27, 81, 92, 97, 101
Ennis, W. D., 2
Equality, on choosing, 153-7

Fabian Society, 36, 83
Factory organisation, bibliography of, 1
Faraday, 156-7
"Father of the Chapel," 82, 112
Fatigue, 122-130
Fines, 117-121
Fish-curing, 125
Ford, Henry, 141
Foremen, appointments by, 21; bribery of, 24; the manners of, 27; tyranny of, 27-29; dismissal by, 28-33; appeal against, 30-32; women as, 144-5

Gantt, H. L., 59, 132
Gas Engineers, Institute of, 3
Gilbreth, F. B., 132
Goïng, Charles B., 2
Group bonus, 90-91
Group piecework, 90-91

Hadfield, Sir Robert, 127
Halsey System, 58, 59, 68
Hatch, L. W., 141
Health of Munition Workers' Committee, 141
Henderson, C. R., 141
"Hiring and Firing," 23
Hours of Labour, 54; not to be increased, 100, 102; not to be arbitrarily varied, 109-110; ought to be reduced, 126-128; to a Six Hours' Day, 128
Hoxie, 132
Hutton, W. S., 2

Individual Bargaining, 63
Investigators, 82

Jobbery, 24
Jones, Edward D., 2, 78, 97, 141

Kendall, L. B., 141
Kent, A. F. Stanley, 126
Kimball, D. S., 2

Labour, causes of trouble with, 37-40. See *Trade Unions*, *Standard Rate*, *Rate-cutting*, *Welfare Work*
Laurence, Edward, 85
Leverhulme, Lord, 128, 139
Lighting, evils of bad, 130
London School of Economics, 152
Longridge, Michael, 73, 93, 135
"Lump of Labour Fallacy," 58

Macarthur, Mary, 142
Management, the function of, 2-14; profession of, 2; bibliography of, 1; indispensable to efficiency, 4; likely to be-

come more necessary, 8; "manners" of, 103-116, permanence of, 157
Medical Council, the General, 19
Menander, 155
Mill, J. S., 52, 154
Mount Ebal, 19
Munitions of War Acts, 95-96
Munitions, Ministry of, 39, 46, 77
"Mutuality," 63

Otey, Elizabeth L., 141

Papermakers, the hand, 52
Payment by Results, 55-98. See *Rate-cutting*
Pease, Edward R., 83
Piecework, 56-98; in the building trades, 61; in the engineering industry, 61-68; in the printing trade, 57; in boot and shoe manufacture, 57; in the cotton trade, 42, 57, 65, 82, 87, 88, 93, 100-102; in glass-making, 57; in coal-mining, 57, 66, 81, 88-89, 129; in steel-smelting, 57; in lace-making, 57; in cigar-making, 57; in wood-working trades, 61; actually preferred by workmen, 57; why often objected to, 62-71
Piecework Lists, 63, 65, 87-88
Premium Bonus systems. See *Payment by Results*
Printing industry, the, 57, 82, 112, 125
"Profiteering," 155
Profit-sharing, objections to, 83
Proud, E. Dorothea, 141
Punishment, unwisdom of, 117-121
Purchasing Department, 3

Ratan Tata Department of University of London, 152
Rate-cutting, 67-98, 144
Rate-fixer, the, 62-68
Restoration of Trade Union Conditions, 55-56, 94-98
Reward systems. See *Payment by Results*
Richmond, J. R., 82
Roland, H., 2
Rowan System, 58, 59
Rowntree & Sons, 139

Sales Manager, 3
Sanitation, 122-130
Scientific Management, 56, 130-152; bibliography of, 132
Shadwell, A., 109
Shaw Company, the A. W., 1
Shop Steward, the, 63, 81-82
Six Hours' Day, the, 128
Skulking, 97
Spooner, Henry J., 124, 127
Standard Rate, the, 17-20, 41-54; alleged need for reduction of, 49-52
Stevens, G. A., 141
"Study of the job," the, 136
Sunday, unprofitableness of work on, 127
Surplus Value, amount of, 154
Sweated trades, the, 45-46
Swindon Works, 136

Tarbell, Ira D., 141
Taylor, F. W., 59, 132
Time-keeping, bad, 68, 121
Tolman, W. H., 141
Trade Boards Act, 99
Trade Unions, recognition of, 34-40; prevalence of, 34; advantages of, 35-36; bibliography of, 36; bargaining with, 37-40; multiplicity and rivalry of, 39-40; attitude towards Payment by Results, 56-58, 62-69, 77-80, 87-94; their relation to Workshop Committees, 113-116; con-

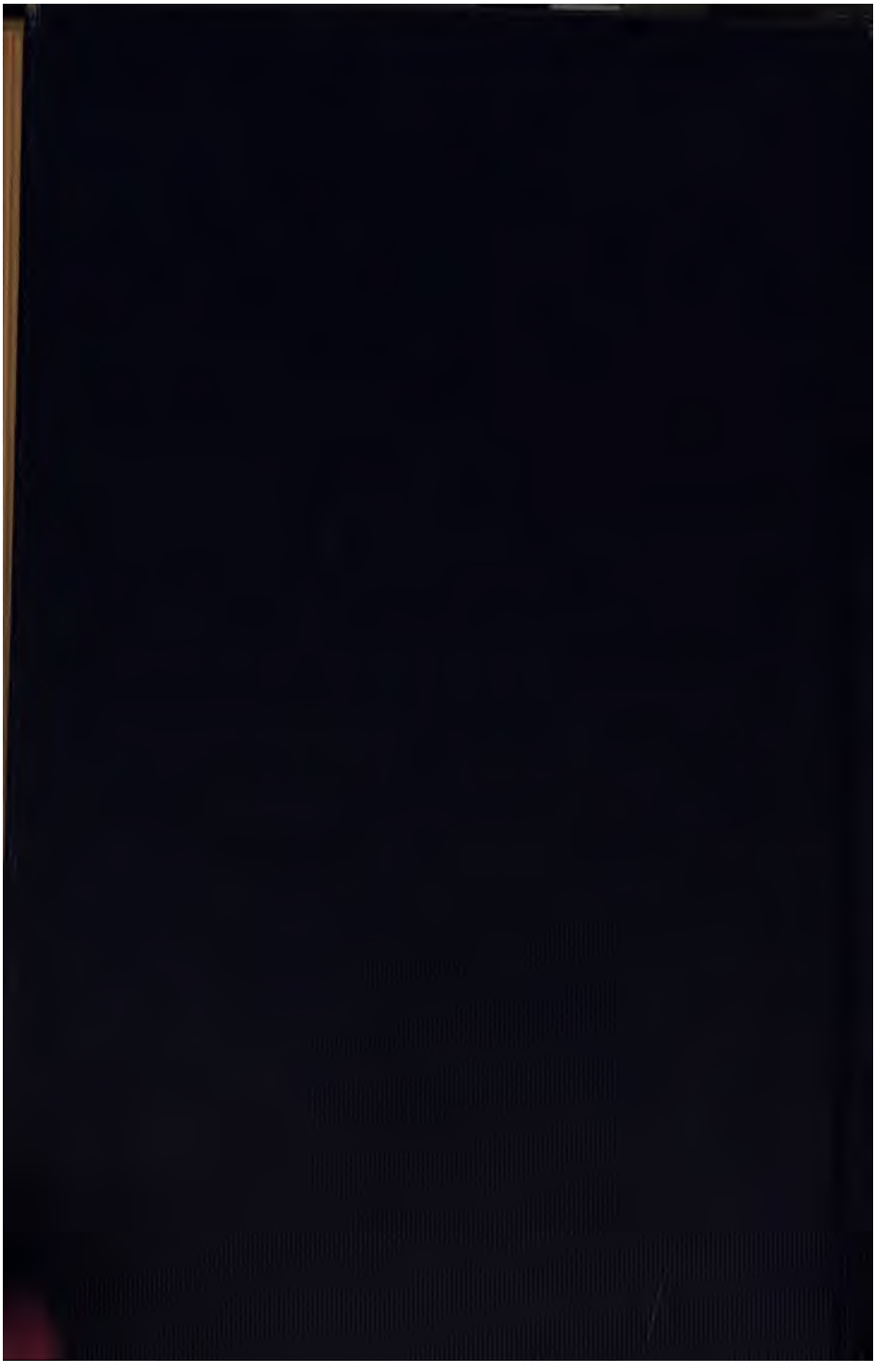
sultation of, as to Scientific Management, 137-138; their objection to Welfare Work, 141-149
Trade Union Conditions, restoration of, 55-56, 95-98
Trade Union Rate. See *Standard Rate*
Training for Welfare Work, 151-2

Unemployment, 22, 30, 98

Ventilation, 122-3

Wages, management should have nothing to do with, 99-102. See *Standard Rate*
Wages Boards, 80, 98
Walton, Cecil, 141
Waste, avoidance of, 13
Weir System, 58, 59, 68
Welfare Work, 138-152
Williams, Alfred, 135
Wood-working trades, the, 51, 87
Woods, C. F., 2
Workshop, the tone of the, 25-27; Committee, 113-116
Works management, bibliography of, 1; function of, 2-14; test of, 9-14

THE END

JAN 10 1918

Printed by R. & R. CLARK, LIMITED, *Edinburgh.*